

AGENDA
REGULAR DRAINAGE MEETING
Wednesday, April 15, 2020 9:30 AM
Large Conference Room

County Buildings are closed to the public due to Covid-19 concerns, this meeting will be open to the public via conference call only. The meeting date and time will remain the same. You may call at that time to access the hearing by following the instructions below:

To access the meeting call: **1-(312)-626-6799**, when prompted enter meeting ID code: **662 016 552**

You can also access the meeting online at:

<https://zoom.us/j/662016552>

DD 25 Landowners have been invited to participate in a discussion of DD 25 Lateral 3 Outlet, at the top of this week's Regular Drainage Meeting Agenda.

This meeting follows the 9:00 AM Board of Supervisors meeting, should the 9:00 AM BOS meeting run long, please wait patiently on the line and we will open the Regular Drainage Meeting as soon as possible.

1. Open Meeting
2. Approve Agenda
3. Approve Minutes

Documents:

[03_25_20 - DRAINAGE MINUTES.PDF](#)
[DD 9 BID LETTING MINUTES 3_25_20.PDF](#)
[DD 165 CANVASS 03_30_20.PDF](#)
[DD 56 RCLS AND ENG RPTS HEARING MINUTES 04_01_20.PDF](#)
[04-01-20 - DRAINAGE MINUTES.PDF](#)
[04_08_20 - DRAINAGE MINUTES.PDF](#)
[DD 102 LANDOWNERS MEETING 9_04_19.PDF](#)

4. DD 25 - WO 01- Discuss W Possible Action - Landowner Input
DD 25 Lateral 3 Outlet -Landowners have been invited to participate in the discussion about proposed changes to the DD 25 Lateral 3 Outlet tile route. Feedback to the Trustees is encouraged.

Documents:

[DD 25 LATERAL 3 - PROPOSED OUTLET MAP 04_02_20.PDF](#)
[DD 25 LATERAL 3 OUTLET EXPLANATION.PDF](#)

5. DD 102 - Discuss W Possible Action - Wetland Project #HAR862018C Rock Alternative Bid Feedback

Documents:

[2020 HAR862018C -ROCK BEDDING DEPTH ON NUTRIENT REDUCTION WETLAND PROJECT DD 102.PDF](#)

6. DD 26 Lat 4 WO 28 - Discuss W Possible Action - Revisit Of WO 28 Repair Summary
DD 26 Lat 4 WO 28 - Calendar reminder set to revisit WO 28 Repair Summary on landowner concerns.

Documents:

[DD 26 LAT 4 INVESTIGATION 010919.PDF](#)

7. Other Business
8. Adjourn Meeting

REGULAR DRAINAGE MEETING
Wednesday, March 25, 2020 9:30 AM
Large Conference Room
This meeting was held electronically due to Covid-19 concerns.

3/25/2020 - Minutes

1. Open Meeting

Hardin County Drainage District Chairperson Lance Granzow opened the meeting. Also present were Trustee BJ Hoffman; Trustee Renee McClellan; Jessica Sheridan, Environmental Health; Angela De La Riva, Economic Development Director; Lee Gallentine of Clapsaddle-Garber Associates; Landowner Mike McCartney and Denise Smith, Drainage Clerk.

2. Approve Agenda

Motion by Hoffman to approve the agenda. Second by McClellan. All ayes. Motion carried.

3. Approve Minutes

Motion by McClellan to approve the minutes to drainage meeting dated 3-18-20. Second by Granzow. All ayes. Motion carried.

4. Approve Claims For Payment

Motion by McClellan to approve claims for payment with pay date of Friday, March 27, 2020. All ayes. Motion carried.

DD 1- WO 244 -Claim for Crop Dmg Kitzman/Hess	Hess 2017 Trust	\$ 768.49
DD 25 WO 209 & 1 -Revised Crop Dmg Claim	Jason Martin	\$ 1,007.76
DD 33 WO 278- Haul 1" Clean Rock	Adam Seward	\$ 1,615.50
DD 33 WO 278-Parts, Labor, Equip.	Honey Creek Land Improvement, LLC	\$11,951.00

5. DD 106 - Discuss W Possible Action - Landowner Request To Locate Tile

DD 106 - Landowner Mike McCartney was present by phone, McCartney stated he has laterals that come out of section 10 into his parcel in Section 9, that were not flowing any water at all last year, section 10 is where the District tiles comes into McCartney's field, and is where these laterals are connected. McCartney is wanting to find where the problem is at in the District tile, where all of his laterals come into it. McCartney made the request to NRCS, as section 10 is in a wetland area, the request to the NRCS was to locate the County tile. The NRCS does not care if he looks for private laterals, but when District tile was mentioned, the NRCS stated they wanted a letter of permission from Hardin County, for McCartney to locate the District tile. Granzow asked if McCartney was speaking of private laterals or District laterals, McCartney stated they are private laterals going into Section 10, that hook into the District's 10" main tile. McCartney stated he has already located his laterals and knows there is no water flowing out of his laterals at all. McCartney just wants to locate the District tile, and has a 650' probe with which he could locate the District tile, and search for where the problem might be. Granzow stated that anytime we work on District tile, there is a process to be followed, which includes an Engineer observer. Gallentine asked if this was the spot that the DOT dug up on the north side of Hwy 65 last year. McCartney replied it was on the same line, but back to the west farther, and on the south side of the highway, but was unsure which side of the highway the problem was on without probing the tile. Granzow stated McCartney would like to save the District some money in trying to determine the problem. McCartney agreed, and stated he was not looking to repair the tile, just try to determine where his issue is. Granzow stated he would like the Engineers observer to be there, because if we have to open the District tile, and have to close it back up again, there should be an observer, Granzow inquired what McCartney would need to provide to be his own observer, Gallentine that we would need to provide his proof of insurance, and if he were to bill the District, McCartney would need to submit his hourly rates. McCartney stated he could provide his proof of insurance, but he was not interested in making the repair, or billing the District for his work or to cost anyone any money, he just wants to find the problem.

McClellan asked what were the minimum insurance coverage needed, Gallentine stated, there has never been a minimum coverage amount specified, just that a Certificate of Insurance coverage was provided to the County by contractors. Gallentine stated that the Trustees would review the coverage submitted and decide if it is adequate. McCartney stated he would like to get his drainage issues solved as quickly as possible. Granzow stated since McCartney is not charging the District he will not need to submit his rates. Gallentine stated that they would just

need a day or two of notice to have an observer in the field, and shoot it with GPS. Gallentine stated that McCartney would need to have CGA on site, so when the tile is opened up, CGA can GPS that point, and make sure the tile is put back together according to our District policy. McCartney agreed with that, CGA provided McCartney with their contact information to McCartney to schedule a time to open the tile. McCartney stated he will still need a permission letter to the NRCS. Smith stated she can provide McCartney a letter as soon as he submits his insurance certificate.

McCartney also inquired about the DD 56 hearing, to be held Wednesday, April 1, 2020. McCartney stated in talking with DD 56 landowners, many expressed concerns over voting on the proposed reclassification over the phone, and wanted to know how landowners could provide feedback if that were a very busy conference call. Granzow stated the DD 56 landowner can email or mail their comments to the Drainage Clerk, prior to the hearing, and that would be the best way for them to submit concerns or objections.

Motion by Hoffman to direct Smith to send a letter to the NRCS upon receiving qualified insurance from Mike McCartney. Second by McClellan. All ayes. Motion carried.

6. DD 160 - WO 283 - Discuss W Possible Action - Repair Summary

DD 160 - WO 283 - Gallentine stated this work order is located just south of Ackley, in which Ken Smith turned in a repair request late last fall, when McDowell was in the area doing some pattern tiling. Gallentine stated what CGA found was upstream of the outlet structure there was about 70' of old CMP that was rusted, deteriorated and had collapsed. Gallentine stated that the outlet structure itself is deteriorated, in itself it is not an issue, but felt it should be noted. In the open ditch that this outlets into, along the west side of the RR track that connects the ethanol plant to Ackley, there are some driveway culverts along there that are pretty mangled and started to rust, and although those are a private issue, not a district issue, it should be noted, that they could impact the open ditch if they collapse totally. The main open ditch of DD 155, which is where this outlets into, the main open ditch has some sediment in it and could use a clean out, this sediment extends in the ditch to the next nearest gravel road to the north, and extends for at least a half mile. CGA recommends doing an investigation to see how much sediment there really is in the ditch. Granzow asked if there was a collapsed tile going into the open ditch. Gallentine stated that has been repaired. Granzow stated that DD 160 had some previous repairs, and then took control of their own district, and without a significant complaint on the sediment in the ditch, Granzow will not recommend an investigation. It was agreed by the Trustees to let the issue of the sediment in the ditch, set as it is at this time.

Granzow stated we should draft a letter to the landowners with the rusted culverts, that could cause damage to our open ditch. Gallentine stated he believes those culverts belong to the ethanol plant, so that they can use those drives to access the tracks. Granzow stated that issue should be addressed with the Ethanol plant.

Motion by Hoffman to have CGA draft a letter to the Ethanol plant recommending replacement / repair of the damaged culverts along the open ditch. Second by McClellan. All ayes. Motion carried.

7. DD 143 - WO 261 - Discuss W Possible Action - Investigation Summary

DD 143 - WO 261 - Gallentine stated this was on the north side of Hwy 175, west of Radcliffe, Calvin Hiland reported there is a hole in the field large enough to drive a truck into. CGA determined that a fiber optic utility had damaged a district tile, the utility was notified they needed to do the repair, and the repair was completed without notifying CGA or the Drainage Clerk, so that the district requirements for observation were not met. UPN (United Private Networks) was the utility company involved. There are some photos available of the repair, that was made with dual wall, which the current utility permit does not allow, they did not do any concrete collars at the pipe joints, they packed some pieces of broken tile around the joints, and they did not use any rock backfill. The next photo showed that they just wheel rolled the dirt above the repair and were done. CGA recommends that UPN be contacted, directed to remove the current repair and install the repair to the permits requirements. Gallentine stated that UPN had been given the Permit specifications when they were notified they needed to do the repair, they just did not adhere to the Permit specifications.

Motion by Hoffman to have CGA contact UPN to request that the contractor get a Utility Permit and repair the damaged area of tile to our Utility Permits specifications. Second by McClellan. All ayes. Motion carried.

McClellan asked if the ground was holding water or had standing water. Gallentine stated CGA has not been out to look at it, and the pictures were provided by UPN at the time of the repair. Hoffman stated he would like to find out from UPN who the contractor was that did the repair, because if they work regularly in Hardin County, they should know better, and we should have a heart to heart conversation with that contractor that this is not acceptable work. It betrays Hoffman's trust that there are contractors that knowingly will violate Permit specifications, they need to be aware that this will be discovered. Gallentine stated he will find out from UPN who the contractor involved is,

and let the Trustees know. Granzow asked if the contractor UPN utilized needed to be certified through the County, and the Utility Permit process does not specify that the contractor be certified through Hardin County. Hoffman stated we need to make sure the contractors working on district tile are reputable and responsible.

8. DD 52 - WO 215 - Discuss W Possible Action - Claim For Crop Damages

DD 52 - WO 215 - Tracy Below's claim was discussed last week, Smith provided the work order details, and DD 52 minutes document to provide some history on what has been previously discussed in the meetings regarding this work order. Minute notes from September 5, 2018 were reviewed. Those minutes discussed that Below would like damages for his alfalfa crop that he had lost, it was explained to him at that time that first year damages were not reimbursed. Below stated that with alfalfa there are recurrent year losses, it was also discussed that he could plant a different crop the next year. There was a motion to reconsider damages once the project is complete. Smith stated she had not worked with a claim on alfalfa and needed clarification as Below submitted losses for years 2016, 2017, 2018, and 2019, Smith inquired what years of loss would be acceptable, and what unit of measure would be used on this crop, would it be by the bale, round bale, or by the ton. Smith stated alfalfa is not listed in the USDA's Common Crop Loss Insurance tables. Gallentine stated he did not recall having a Crop Loss Claim on alfalfa before. Hoffman stated he thought that all forage crops were measured by the ton. Granzow stated we have previously discussed that the owner of the parcel, also owned the trees, whose roots were causing the drainage problem, and we discussed at one point whether we would reimburse for crop damage in this instance. Gallentine stated the trees owned by the landowner, Piel Manufacturing, were responsible for causing the crop damages to his tenant's alfalfa crop. Gallentine stated we involved legal to get help with getting the landowner to give permission to get the trees removed. Granzow stated in 2013 we pulled out tree roots once, and pulled out roots from 50' of tile, and that was not enough, Gallentine stated we re-laid the tile and put in solid wall, and moved it further from the trees in 2013, and that was not enough to solve these issues. Granzow stated in 5 years time, we ended up taking out the trees altogether, and although he feels for the tenant, at what responsibility is it of the requested years, that are the district's responsibility or the landowners responsibility. McClellan agreed. Granzow stated the last two years, when work was being done in the district, those losses are the districts responsibility. Hoffman stated that is the problem with waiting so long for the claims, how do we go back to 2016 and compare costs to that year's first cutting of alfalfa or that year's second cutting alfalfa that hasn't been stored inside, there is a precise science to alfalfa pricing, and he does not think this is something we can jump into and make a decision today.

Granzow asked if Below requested a dollar amount on his claim. Smith stated Below did not list a dollar amount as he was unsure of the unit of measure as well, Below listed 3.5 acres as damaged. Below states in his claim, that it was flooded for 2 years, then dug up and open for 2 years, and he could not plant alfalfa in 2020 as you can't plant alfalfa back to back for that many years or it will be toxic. Granzow stated the 2 years of flooding, are not the District's responsibility, and the 2 years that it was dug up and open are the District's responsibility, and he believes those are our damages caused by the contractors work in the field, and we need CGA to verify how many acres were actually disturbed by work. Granzow went on that the work lasted 2 years because we struggled in getting a response from the landowner to remove the trees, it took a year to get a response from the landowner to remove the trees, so should the district be responsible for that first year of waiting on landowner permission, or on the second year only, when work was done in the field. Granzow stated yes, we dug it open, but then waited on the landowner that whole first year, before we could get trees out and do the repair, and Below's issue should be discussed with his landowner, or perhaps the landowner should make the request for damages if he pays Below for crop damages himself. Granzow stated, should the landowner pay Below for damages, is it fair then, that he is assessed for the cost of crop damage claim along with everyone else in the district, it is a slippery slope on this issue. McClellan stated perhaps this is an issue for legal. Hoffman stated that legal could bring some clarity, as he does not want to be held harmful and he wants there to be some legal guidance.

Hoffman motions to enlist the assistance of attorney Mike Richards for some guidance on the issue, and have CGA verify damaged acres. Second by McClellan. All ayes. Motion carried.

Hoffman stated he will research alfalfa prices for the last two years. Gallentine wanted it noted that he does not recall the District ever paying damages that occurred prior to construction, as that could draw into the conversation how many years has there been a problem, we can't be expected to look back 5 and 10 years into the past for damages. McClellan had issue with this being a district expense when and if there is negligence on the landowners part, as a landowner he has responsibilities in this as well, if it went on an additional year because the landowner was uncooperative. Hoffman appreciated the quality dialogue.

9. DD 25 - WO 209 & 1 - Discuss W Possible Action - Claim For Crop Damages

DD 25 - WO 209 & 1 - Landowner Jason Martin stopped in last week to offer insight on his claim for crop damages and why he had reported additional acres. Granzow explained that there had been potholing done in Martin's field, and the potholes were left open and under pressure, allowing water to bubble out causing the ponds to go larger,

and that is why he claimed the additional acres. Gallentine stated the landowner is out there everyday and sees changes, and CGA is there during work and sees what is disturbed. Gallentine appreciated the clarity.

Motion by Hoffman to approve Jason Martin's claim as presented. Second by McClellan. All ayes. Motion carried.

10. Discuss W Possible Action - Wind Turbine Ordinance And Drainage Utility Permit Language & Process

Hardin County's Drainage Utility Permit was discussed by the group. A list of options that could be added to the Drainage Utility Permit was drafted for later discussion and review by attorney Mike Richards. Westhenry loger had expressed an interest in being involved in the conversation but was unavailable by phone. Hoffman stated the CWEC was not seeking a development agreement. De La Riva stated that in wind projects in Illinois that she visited, those counties did have a development agreement with the CWECs, and neither project received an incentives. Granzow pointed out that we are looking at a Development Agreement between the CWEC and the DRainage Districts, not with the County. De La Riva stated since these projects in Hardin County would go right through the several drainage districts, there needs to be a development agreement, it need not include incentives, especially if the CWECs are not seeking incentives. De La Riva stated an agreement would ensure that when a tile is broken, it will be fixed correctly, and should there be any legal issues, those costs should be paid by the CWEC. De La Riva went on the agreement should give the landowner the right to use the turbine access roads, and allow for aerial applications as needed by the landowner with 24-48 hours notice. McClellan stated the agreement should make sure there is a timely reply from the CWEC in the case of aerial spraying, as those applications may be very time sensitive for farmers, we can't be waiting a month for permission from the CWEC if there is an immediate need for a pesticide/herbicide/fungicide application.

McClellan asked if De La Riva had any sample agreements for reference. Gallentine stated he has shared a copy of the Franklin County wind ordinance. Granzow stated the proposed project and Utility Permit in Hardin County is much more detailed than Franklin County's permit entails. Smith has shared the Franklin County permit with Gallentine. Hoffman stated we should truly use our in county engineers and contractors, as much as possible, rather than allowing the CWECs to utilize contractors from out of state that have no experience in our drainage tile systems. Gallentine stated that in Franklin County, their county attorney recommended against having the Engineer be paid directly by the CWEC, that the drainage districts should pay the engineer and then get reimbursement from the CWEC so that it is clear the Engineer is working for the districts and not the wind turbine company. Granzow stated we should not break it down to a cost per district as they will pass through multiple districts, but rather bill the CWEC for the engineer's services by the hour. McClellan stated if we do it that way we would have to assess the district before we can bill the CWEC for the engineer's time, and that we should not be passing these costs onto the landowners. Hoffman stated the CWECs should be provided the hourly rates up front, and there should be a penalty if we find they are doing work in the district without the required engineer oversight. Gallentine stated when they were building the Franklin County project, it was basically one of CGA's observerfull time on sight for at least a month to a month and a half. Hoffman asked if CGA had any compliancy issues. Gallentine stated Alliant was the owner and White was the developer, and they were well experienced and they did not have a lot of issues. Hoffman stated we should provide a list of rates for all in county contractors to ensure there is no cost fixing. Smith stated all contractors currently provide the Clerk with a list of rates when the contractors send in their annual Certificate of Insurance. Gallentine stated that Paul Williams and Adam Seward have both expressed an interest in getting into televising. Smith has provided attorney Mike Richards with a copy of the Hardin County Drainage Utility Permit, our current wind turbine Ordinance, a draft of version of our Ordinance with potential changes, and the Franklin County Wind Turbine Permit.

Attorney Richards stated we do not want to have to go through similar hoops put in place by the railroads, for permitting to work on District facilities.

A list of options that could be added to the Drainage Utility Permit was drafted for later discussion and review by attorney Mike Richards.

- Televising District Tile before and after a turbine's construction to review tile condition and ensure if damage is done, that it would be found by televising.
- Require any crane walks to use GPS to map the path of the crane as a record for the District.
- Setback distance of 200' from the outside of the turbine's footing to any district facilities (to include open ditches), to allow for room to make repairs to District tile.
- Utilize the same Utility Permit process that other Utilities use, but construction observation or Engineer's technician on site and chosen by the Drainage Trustees, is paid for by the CWEC/developer. Costs should not be passed on to landowners/the District.
- CWECs should be required to bore their cables under District facilities, so that when we repair district facilities, we don't have to dig past their lines.

- Require CWECs use to our in county District Engineer, and local contractors for tile repair and televising and the costs should be paid by the CWEC/developer, this would include paying an observer to go through the televising videos and look for any damage. A price list for local services/rates should be provided up front, to assure there is no cost fixing.
- If a wind turbine is re-powered, televising of District tile should occur again after re-powering, or any time after a crane walk is done, televising should occur in District tile 100' on each side of crane walk.
- We do not need CWEC's permission to work on/repair our district facilities.

Motion by McClellan to recess and return after the DD 9 Bid Letting and DD 143 Hearing. Second by Hoffman. All eyes. Motion carried.

Motion by McClellan to return to regular drainage meeting. Second by Hoffman. All eyes. Motion carried.

The discussion of options for the drainage Utility Permit continued. Attorney Richards stated we do not want to have to go through similar hoops put in place by the railroads, for permitting to work on District facilities. Hoffman stated that CWEC contractors are not familiar with field tile, and may not be experienced enough to do repairs to District tile to our standards.

- CWEC/developers should pay any legal costs incurred by the district regarding any disputes over drainage repairs that need to be done by CWEC. These costs should not be paid by landowners, especially as the CWEC will pass through multiple districts. This should be paid for with possible mass assessment to cover legal fees, and have this repaid by money placed in escrow by the CWECs.
- If new drainage district construction is required, and any additional costs are accrued due to working around CWEC facilities, those additional costs should be paid by the CWEC's, for the life of the wind turbine.
- If the district ever changes their facilities, ie; upgrade, upsize, or reroute district facilities, the CWEC would be required to match the requirements to meet those changes at the CWEC's expense.
- A \$50,000 fund provided by the CWEC, per drainage district, to cover the cost of drainage repairs for issues caused by the CWECs as they occur, rather than trying to get the district reimbursed for repairs, and to have that fund be replenished by the CWECs as funds are used.
- Any CWEC vehicle or equipment with a gross vehicle weight of 8,000 lbs or over would require a GPS map record of their path.

Granzow stated this language would just be an ordinance for wind turbines only. Hoffman stated we already have a permitting process in place for other utilities. Attorney Mike Richards does not necessarily disagree with any of these options, but cautioned it may result in the wind turbine company stating we simply do not wish to proceed with this project in this area. Granzow stated he is not here to protect the wind turbines, but to protect the already established drainage facilities, and thinks this is not a good area to build turbines in.

Richards said in his experience, the sales people for these wind turbines make many assurances, but in the end the landowners may find, they did not receive what the turbine companies made assurances of providing the landowners. Granzow stated a million dollar revenue to the county for a wind turbine over 35 years, may generate \$35,000,000 in revenue, but we already have more than that invested in the area's drainage infrastructure, and that income does not even touch the costs of what we have already invested. Granzow states there is a great deal of risk for landowners, who have little say in their neighbors choices on wind turbine lease location. Smith stated nearby neighbors, who have not signed a wind turbine lease, have no recourse with the CWEC if they should have drainage issues after the turbine's installation, only those landowners that signed a turbine lease agreement would have recourse with the CWEC. Richards stated there is 2 or 3 large contractors that do turbine installation nationally, and they come from the southern US states, that have a significantly different methods of drainage or agriculture, those contractor will not only be unfamiliar with our tile systems, and they frankly don't care about them their job is to get the wind turbine up and running.

McClellan asked if Richards could share an insights on what other counties in the state have for CWEC ordinances. Richards stated he would do some research on Palo Alto County's recent regulations in regards to wind turbines. Granzow stated he did not want any of the Drainage Districts to be responsible for any of these CWEC turbine costs, either before, during or after construction. Hoffman stated they need to be held harmless for decisions that were not a District decision. McClellan stated the whole west side of the county is in drainage districts, it is a shame they did not choose to locate it the east side of the county where there is less drainage. Granzow stated 49.8% of our county is in drainage, and this project goes through much of that area. Hoffman stated he does not believe there is a landowner that has signed an easement whose land is not in a drainage district.

Granzow had a question about who is responsible for street crossing repairs within a drainage project as well, Richards will research this and get back to the Trustees.

Mike Richards stated he will do some research and return back to the Trustees with his findings on the discussion of the wind turbine ordinance and drainage utility permits.

11. Other Business

DD 102 - Wetland Project was discussed. It was on the agenda at the last meeting, Hoffman spoke with Steve Perry, and the bid letting was completed. Smith had emailed Mike Bourland for more information, Bourland was concerned about not having a landowner meeting as he was concerned that the rock bedding alternative would be hard to explain in a letter. Smith can reach out to Bourland for more clarification for a letter to landowners, or the Trustees could consider an online meeting. Hoffman saw the bids, the project from the winning bidder was \$28,000 additional costs, the second place bidder was \$12,000 more in total project costs than the winning bidder, but the cost for the rock alternative was \$3,000, but from what the bid contract stated, that was not part of the State's bid. Gallentine stated, they were correct, the low bidder was based off the money the State was spending, not off the cost of the total project. Hoffman had concerns that this would raise the cost to landowners but not the State. Gallentine stated the low bidder if they just went on State pricing only was Rogness Brothers out of Lake Mills, Rogness's price was \$28,500 for the rock alternative, if they based it off total project costs, it would have been McDowell and Sons, as their rock price was only \$6,365. Granzow asked if the District landowners want to pay \$28,500 for the rock bedding or have no rock bedding. Gallentine stated the rock bedding is still far cheaper than the original project they were proposing, but with this award it looks like you just spent an extra \$22,000. Hoffman stated it would be hard to award the bid to Rogness Brothers without the alternative and get permission for another contractor to come in and lay the rock bedding. Granzow stated he feels the landowners should choose - either \$28,500 for rock bedding or no rock bedding. Granzow stated perhaps we could negotiate the cost of the rock. Gallentine stated when Hardin County did the projects with Sindelar west of Buckeye, and Rogness did one of those projects with plastic pipe, and spooned it in, and he thinks Rogness would like to spoon it all in without using rock, and that is the last time Gallentine was aware of Rogness working in Hardin County, and this was not a project involved in a law suit. Granzow stated we need to send a letter to landowners, with a yes or no vote option, with response back to the Drainage Clerk. Granzow stated the Trustees do not need landowner permission, and if asked if we need the rock bedding on the project, his answer would be yes. Gallentine stated the large pipe in the District portion is larger concrete pipe. Granzow stated the letter should explain the rock bedding is cheap insurance, Gallentine agreed it may be wiser to just do a mailing with Covid-19 concerns. Smith can send a letter with an enclosed postcard for the mailing, requesting landowner feedback.

Hoffman inquired as to how many open work orders we have at the moment. Gallentine stated we have less than 10 open work orders awaiting a contractor. Gallentine went on that Paul Williams mentioned thought he would take some work orders, but his water and sewer business picked up so he did not take any work orders for Hardin County. Gallentine stated the only contractor that has been picking up work orders is Adam Seward and he has been a game changer.

12. Adjourn Meeting

Motion by Hoffman to adjourn. Second by McClellan. All ayes. Motion carried.

DD 9 Bid Letting
Wednesday, March 25, 2020 10:45 AM
Large Conference Room
This meeting was held electronically due to Covid-19 concerns.

3/25/2020 - Minutes

1. Open Meeting

Hardin County Chairperson Lance Granzow opened the meeting. Also present were Trustee Renee McClellan; Trustee BJ Hoffman; Angela De La Riva, Hardin County Economic Development; Lee Gallentine of Clapsaddle Garber Associates; and Drainage Clerk, Denise Smith.

2. Approve Agenda

Motion by McClellan to approve the agenda. Second by Hoffman. All ayes. Motion carried.

3. Introductions/Attendance

Introductions were made and attendance was verified.

4. Open Bids

Bids were received from 5 contractors for the DD 9 Upper Main Tile Diversion, Project 6735.1. Bids were opened by McClellan. The bid bonds were opened first followed by the bids for each contractor.

The first bid opened was from Gehrke, Inc., bid security was a bond surety of 5% of bid amount. Gehrke Inc.'s base bid total - \$125,334.00, alternate bid total \$122,180.00, add alternates bid was \$12,760.

The next bid opened was from Mort's Water Company, bid security was a cashier's check for \$9,676.50. Mort's Water Company's base bid was \$193,930.00, alternate bid total \$256,106.90, add alternates bid was \$10,000.

The next bid opened was from Hall Backhoe and Tiling LLC, bid security was bond surety of 5% of bid up to \$200,000. Hall Backhoe and Tiling LLC's base bid was 152,387.00, alternate bid total \$178,274.60, add alternates bid was \$4,000.

The next bid opened was from Brian Nettleton, bid security was bond surety of 5% of the amount of bid, base bid was \$122,200.00, alternate bid \$133,320.00, add alternates bid was \$4,000.00

The last bid opened was from Farm Tile Pro, bid security a check for \$10,000.00. Farm Tile Pro's base bid was \$117,010.00, no alternate bid was provided, add alternates bid was \$4,000.00.

Gallentine stated, for clarity the bids read aloud for all of the bidder's "add alternates bids" were just for one line, and not the total amount for the add alternates, the bid tab will reflect all of the add alternates listed with a total for each bidder. Gallentine went on that as we are meeting electronically today, CGA will provide the bid tab shortly, as bids will need to be scanned in and shared with CGA.

Gallentine stated that the Trustees have the option of awarding today, but with that many bids, it may be best to have the Drainage Clerk, scan all of the bids so CGA can verify the math, and then send the bid tab out, and make a selection at next week's Regular Drainage Meeting.

Hoffman suggested we gather the data, send it on to CGA, then put the bid tab up on the website under Drainage Projects tab for DD 9 for public viewing, and then take action on the bids next week. Gallentine stated CGA will have the bid tab back to the Drainage Clerk today. Gallentine also noted that the Engineer's estimate on this project was \$140,000, so if the math checks out, these are some very good prices.

5. Possible Action On Bids

Motion by Hoffman to acknowledge the receipt of the DD 9 Upper Tile Diversion Project bids, the acceptance of the DD 9 Bid Letting and to set it for review at the Regular Drainage Meeting on Wednesday, April 1, 2020, and to post the bid tab on the County's website. Second by McClellan. All ayes. Motion carried.

6. Other Business

7. Adjourn Meeting

Motion by Hoffman to adjourn. Second by McClellan. All ayes. Motion carried.

CANVASS OF 2020 DD 165 ELECTION OF DRAINAGE DISTRICT TRUSTEES

The 2020 Drainage District 165 election of drainage district trustees was canvassed by the Board of Supervisors, BJ Hoffman, and Lance Granzow with Drainage Clerk, Denise Smith , present on Monday, March 30 , 2020 at 10:30 A.M.

We, the undersigned members of the Board of Supervisors for Hardin County, hereby certify the following to be a true and correct abstract of the votes cast in this county at the 2020 Drainage District 165 election of drainage district trustees held on the 28 day of March, 2020, as shown by the tally lists returned from the election precinct.

Drainage District 165 Trustee.

There were 13 votes cast as follows:

- Will Ibeling - 6 Vote(s)
- Kenneth Smith- 6 Vote(s)
- Kuper Family Living Trust (Kenneth Kuper) - 1 Vote

Chairperson

Board of Supervisor

Attest:

County Auditor

Board of Supervisor

**DD 56 Hearing on Reclassification Commission Report for the Main Tile of Drainage District 56 (East & West) and Public Hearing on Engineer's Report (Including Revision and Supplement on Improvements to the Main Tile of Drainage District 56
Reclassification Hearing - Wednesday, April 1, 2020 at 10:00 AM
Engineer's Report Hearing Wednesday, April 1, 2020 at 10:15 AM
Large Conference Room
This meeting was held electronically due to Covid-19 concerns.**

4/1/2020 - Minutes

1. Open Meeting
Hardin County Drainage District Chairperson Lance Granzow opened the meeting. Also present were Trustee BJ Hoffman; Trustee Renee McClellan; Jessica Sheridan, Environmental Health; Angela De La Riva, Economic Development Director; Lee Gallentine of Clapsaddle-Garber Associates (CGA); Patricia Klaver; Regina Neville; Mark Maakestad; Mike McCartney; Dan Kumrow; Mike Bostrum; John Kufus; Curt Groen; Greg Larson; Michael Fjelland; Kathy Colvin; and Drainage Clerk, Denise Smith.
2. Approve Agenda
Motion by Hoffman to approve the agenda. Second by McClellan. All ayes. Motion carried.
3. Introductions/Attendance
Introductions were made and attendance recorded.
4. Open Public Hearing
Drainage District Chairperson Lance Granzow opened the public hearing.
5. Verify Publication
Drainage Clerk Smith verified the hearing notice was published on March 4, 2020 in the Times Citizen.
6. Explanation Of Reclassification, Project, And Engineer's Reports

Granzow stated that in these times while trying to work through the Covid-19 situation, he wanted to provide ample explanation of the Reclassification Report, project and Engineer's reports, we may choose not to act on them at this time, or if there is ample explanation and participation today, we may choose to take action.

Gallentine provided an explanation of the Reclassification Report. Gallentine stated the District Trustees, directed CGA to create a report that reclassifies and splits the land within the existing boundaries of DD 56 for the main tile for purpose of instating a separate outlet for the upstream portion of the district. The Reclassification Commission consists of two disinterested landowner who reside in Hardin County, in this case it was Dennis Prochaska and Chuck Walters and Gallentine as an Engineer. It is a code requirement to have these three positions in place in order to conduct a reclassification, and these three drafted work on this reclassification report.

Gallentine explored the background information that CGA gathered and provided to the other commissioners, this was the existing classification, the USDA soil maps, maps of the existing district boundaries and facilities that the Hardin County Drainage Clerk has on file, aerial tract maps from Hardin County GIS website, recorded boundary surveys from the County Recorders office, and also online LIDAR data, which is elevation data the state provides the public at no charge. Using this data, the commission generated these steps to look at the reclassification.

The first step (see 2.0 in the report) was boundary generation, this generates the internal boundary between the east and west portions of the district, based on the proposed location of the separate main tile outlet. That was done using CAD, lidar, and maps compiled onto a composite drawing on the computer. The next step was to use tract verification, for this step we verified that each tract number, on the existing classification was within the district boundary and were the appropriate size. Iowa code requires tracts be sized at 40 acres or less based off of CGA's interpretations of that, CGA assumes they mean 1/4 1/4, so if you have 80 acres in the district, you would be looking for two different tracts, one per 40 or per 1/4 1/4. The next step was acreage verification, which involved verifying the acreage contained within the existing classification. Those existing acreages were probably created back 100 years ago when the assumption was every 40 had 40 acres in it, since then there have been boundary surveys done and the GIS has some different data, for this step the Commission compared the record survey data versus what was in the existing classification. The next step was acreage generation, for this step, if it did not

already have an acreage already, then the verification process would generate an acreage for those needed tracts. The Commission did that with all that data, there are maps in Appendices B & D that show the different tract numbers in the boundaries.

The next step was to use the soil type determination, for this we used the USDA maps along with the line work from the GIS maps, to differentiate the different soil types within each tract, so this differentiated between very poorly drained, poorly drained, well drained, excessively well drained. The next step was proximity or the distance from the District facility, in this case the main tile. The approximate center or centroid of each tract and did this along the straight line route, because the Commission has no idea what private tile there are connected to these district facilities, and wanted to evaluate everyone on a similar basis, so they used straight line to determine proximity.

Gallentine asked if there were any questions on the background information, no questions were presented.

Gallentine went on to discuss drainage benefit from the district facilities. Once the above data was gathered, the Commission used the data to evaluate benefit from District facilities. The soil factor was determined to be under 3.1, this factor is what we consider the need for the district facilities based off the characteristics of the soil, the drainage capacity, and also those soil types figure in slope, it was weighted dependant on what soil type was in each tract. The very poorly drained soil received an 85% factor, poorly drained received a 55% factor and well drained received a 10% factor. Those percentages are based on the Commission's determination. Typically, well drained soils don't need the district facilities, as much to be productive, whereas the poorly drained and very poorly drained soils rely heavily on district facilities to be productive, that was done for each individual tract.

Gallentine discussed the proximity factor, so that is an indication of the availability of the district facility, which would be the main tile, based on how close it is when they measured that straight line distance. There is a wide range of distances from that centroid district facility. For the east portion, those distances measure anywhere from 7' to 3,063', and the west portion it was 25' to 3,678', since the range was so wide, the commission scaled it down, on a scale of 10 to 100. This scale meant that the tract that had the farthest distance measured would have a factor of 10, the tract that had the closest distance measured would have a factor of 100. This is based on the assumption that if you are farther away from the district facility, you are running additional expenses to access that facility, such as private tile or lateral tile, that is why you receive the factor of 10. If you are close to district facility, typically you can just tie right into it.

Gallentine asked if there any questions on those two factors and how they are determined. No questions were presented.

Gallentine moved on to the combined factor, this is just the facility factor times the soil factor. Once the combined factor was calculated, the Commission used that to determine an indication of the highest benefitted parcel of each half of the district (the east half and the west half). Whoever had the highest combined factor, would be determined by the balance of having the soils at most need of the facility and those being the closest to the facility. Once the combined factors for all the tracts were determined then the Commission could determine the percent of benefit, this is the benefit that each tract receives based on a scale of 100. Code requires the most benefitted tract or parcel, to have a 100% of benefit, so whoever had the highest combined factor would get a 100% benefit and then all of the other tracts combined factors were compared to the 100% benefitted tract.

Gallentine asked if there were any question on the percent of benefit and how it was determined. No questions were presented.

Gallentine covered units assessed. This combines the percent benefit along with the land area, until now we haven't figured in land area at all. Essentially the units assessed is the percent of benefit multiplied by the land acres multiplied by 100 to get it out of the percentage.

Gallentine went on to percent units assessed, this is percentage of units that were assessed for each tract as a portion of the total district, this is similar to the percent benefit, but it is different. The percent benefit is comparing each individual tract to the most benefitted tract, the percent units assessed is comparing each tract to the district as a whole, there is a subtle difference there.

Gallentine covered the percent levied, this is an indication of the levy amount necessary to pay for a project, for this report, for this report it is 100%. If this gets adopted, in the future if the Drainage Clerk can adjust that levy up or down to suit however much is needed for the amount of bills to pay for a project.

Gallentine went over the assessment for project on the entire tract basis, this is the amount that each tract has to pay, for 100% levy, it is calculated using a sample cost of \$425,000 for the west portion and \$425,000 for the east

portion of the district. This is based on the Commission's determination, that if the separate outlet project were to move forward, both the east portion and the west portion would benefit equally from that project. That is why they had the same sample costs, this is calculated using the percent units assessed times \$425,000 which is the sample cost, last step is an assessment for the project on a per acre basis, this is the entire tract basis cost divided by the number of acres.

Gallentine asked if there were any questions on these steps. Greg Larson asked in Section 3.8, you are using a sample cost of \$425,000 for a total cost of \$850,000, is that an updated estimate for the outlet only, as there was no estimate included. Gallentine replied, that \$425,000 for each half is just a sample cost, this is not updated to reflect any potential project that moves forward. Gallentine stated we do not have a bid letting yet, but there is an Engineer's opinion on probable costs in the Engineer's report, this is just a starting point, for example, if the project ends up being instead of \$850,000 and it ends up being \$1,000,000, each sides costs would be \$500,000. Greg Larson asked if a final Engineer's estimate had been done on the outlet only, plus whatever modifications to accommodate that would have to be done, has been completed. Gallentine stated nothing has been changed since the last Engineer's Report and Supplemental Report, Reclassification is a separate report, and we are just using this as a sample cost. Larson stated, I don't think we have an estimate with a free standing outlet, it was included with a partial tile replacement, so he does not think we have an estimate for the freestanding outlet alone. Gallentine stated, he has not done any additional cost estimates beyond what was done on the original Engineer's and Supplement report.

there are exceptions to the process, Gallentine explained, anytime you come up with a system, there may be something that doesn't fit right. The first exception (Section 4.1), if you have tracts that are really irregular in shape such as the one along the railroad, county road right of way or DOT right of ways, those are highly disturbed soils so the soil maps are not that accurate, and for those we didn't calculate soil factors and proximity, so instead we used the average combined factor for all the tracts was used for those. In this case, the only tracts that this applies to are roadways, and current and former railroad tracts. Those are highlighted pink in the appendices, those in the west portion are tracts number 1 and 2, for the east portion it is tracts numbers 1, 2, and 3. The other exception was, the District Trustees that requested the Commission to determine an appropriate classification if the separate main tile was made deeper, approximately 2' deeper was discussed at the previous hearing. The Commission determined that if the separate main tile outlet is installed any deeper than the existing main tile, it would solely benefit the west portion and not the east portion, so any additional costs for this would be solely on the west portion of the district.

Gallentine asked for questions on exceptions. Greg Larson asked for a 2' deeper tile, can you give us an order of magnitude that would represent on costs, are we talking \$40,000 or \$200,000. Gallentine stated for the additional 2' deeper, his estimate or opinion on that, it would raise the cost \$10 per foot of pipe. Gallentine would have to look and see how many feet we are talking about. Larson stated about 4,700' of main tile. Gallentine stated he would not disagree with that. Larson stated it could be between \$50,000 and \$100,000 then. Gallentine stated, yes if you are talking in round terms, and he has no reason to doubt that. Gallentine stated the point of the Commissioner's report is if District desires that tile to be installed at a deeper depth, than that cost should solely be to the west portion of the district and not the east portion of the district.

Gallentine reviewed the conclusion. The Commission generated this report, the classification sheets are in the back, along with maps, and sheets showing where different tracts are located and where the split is in the district. Gallentine stated it is also worth noting on the maps there are certain areas that are solid red, those are areas that were in the original map but not in the current classification, they may have been annexed into other different districts. The Commission went on the same assumption on those. The Commissions recommendations are that the Trustees approve this report, they have already accepted it and hold the required hearing, which we are attempting to do today. Gallentine stated at some time if the separate outlet project moves forward, we recommend this report be adopted, if the project does not move forward then this report does not really apply. If it is installed deeper, than the existing tile, that cost would be assessed solely to the west porion of the district. This assessment should be used for future maintenance if that separate main tile outlet moves forward.

Gallentine asked for questions. Jon Kufus asked if Gallentine can guess, how has the proximity factor changed in the last 100 years. Gallentine stated he is not 100% positive how they did Commission Reports a hundred years ago, what he understands is that a lot of the time they would classify the ground based off of swamp acres, wet acres, dry acres and most of that viewing was done before the District tile was installed. We have the benefit of the online soil information from the USDA's website, which they did not have a hundred years ago, we also have the method of GIS so when we drop that into CAD, we can measure distances more precisely than they would have a hundred years ago, for example this tract is an 1/8 mile from the district main or 1/4 mile from the district main, we can get it down to feet. Kufus asks that his 1/4 he would be assessed \$52,000, and there is land his family owns a mile or two south of that and it is a fraction of what he pays, and they need the drainage worse than he does. Kufus wants to make sure this proximity factor is taking into account the days when Grandpa dug tile with a spade, moving tile a mile or two to that main tile is a fraction of the effort it used to be, that is irritating to Kufus. Gallentine

stated this is what the Commission felt was equitable and this what the Commission has used on other drainage districts. At this hearing or if this hearing is delayed or decisions postponed, the District Trustees have the authority to adopt this as it is, to modify it, to send it back to the Commission again for reevaluation, and that is why we are here today, to listen to those comments. Gallentine appreciates those landowner comments as well.

Granzow asked for any other questions. Greg Larson asked, if one of the possible actions here is just to construct the outlet only. Gallentine replied, yes that could be a possible action by the Trustees once we start talking about the Engineer's report. Kathy Colvin asked if this is finalized, will these assessments be spread out over 10 years. Smith replied, you can apply for a waiver that allows you to spread payments out over a 10 year period, yes. Granzow stated it has to be a dollar amount of over \$500 per tract, to meet the minimum requirement for waiver payments. Gallentine stated when you receive the assessment, there is a time limit as to how long you have to sign up for the waiver. Smith stated landowners have a 30 day period from when they receive the assessment in which to sign up for the waiver payment plan.

Granzow stated we appreciate all the written comments received, Larson had submitted written comments requesting a change on the date of the hearing, Granzow explained once we set the time and date we had to go ahead and have the meeting, Larson stated his first two comments had been answered in discussion, the last comment should be involved in when we start talking about options, he was unsure if the costs would be based on the last Supplemental Report which showed the main tile outlet and partial main tile for the western district or if there could be other options to that like the outlet only or a complete main tile for the western district. Granzow stated we are in the Reclassification Hearing now, which we will follow up immediately with the Hearing on the Engineer's Reports, if we don't move forward with any project, this Reclassification falls by the wayside. Gallentine stated yes, that is correct, if we go with any other options other than putting in a separate main tile outlet, this reclassification goes by the wayside. Granzow stated we did this reclassification so landowner's would know what their portions would be if we chose this route. Gallentine stated that was correct, there were questions about which portion would pay more, the east or west portion, and this reclassification cleared those questions up.

Granzow stated the first hearing was just on the reclassification, and asked if there were any more questions on that. Mike McCartney asked if we don't reclassify these districts and we continue on as usual, what is the time frame of how long this complete main will hold up, can we add 50 years to the bottom end of it if we take the water off the top end of it, or will we be putting in a whole new tile in 10 years if we do nothing now. McCartney asked if we will really help the bottom end by taking the top off of it. Granzow stated we can't tell how long the tile will last, this will relieve that much more pressure by removing some of the volume going through it. Gallentine can't tell you how long the tile will last either, it is a 100 year old tile, this will aid it some by taking some pressure off, but there are no guarantees how much time you are buying by doing that. McCartney stated his fear was that if we go ahead and divide the districts, then in 5 years we will have to replace the lower end with only half as many people paying for it, he has concerns for the future if we divide the district. Gallentine stated that is entirely possible, we are not buying a new car here, it is like putting new tires on a 100 year old one.

Granzow referenced written comments from Dan and Tammy Kumrow. Dan Kumrow asked what was the reasoning behind dividing the district. Kumrow stated the east side is old, and may need to be repaired someday, and wanted to know more about the reasons for dividing the district, at this point he is not certain that one option is better than the other. Granzow stated when we had the public hearing one of the Sheldahl brothers brought it up as a mechanism that would support both districts and asked that it be put in as an option, at the time people wanted to see what the option of dividing the district would cost, and that is where the reclassification came in if we were to move forward. Gallentine stated he believed Granzow was correct, and this separate tile outlet would divide it into two separate watersheds. Granzow stated he had reviewed the written comments and asked if there had been any other comments received prior to the hearing. Smith stated she had taken a phone call from Jon Kufus prior to the hearing, about p[ostponing the hearing due to Covid-19 concerns, that was the only other comment Smith had received.

Kathy Colvin stated that she appreciated if all the meetings could be held this way as she is in Arizona. Granzow stated he appreciates having as many people in a room as he can, but this may be the new common method. Colvin stated in the past when she called in she could not hear the meeting well and felt she could not participate that way, but this method is much better as she can hear the whole meeting. Granzow stated we will try to continue this in the future. McClellan said for landowners that don't live here this is a great way for them to have public access to these hearings and meetings. Regina Neville appreciated Kathy's comment and also endorses the zoom style meeting as she is in Minnesota, and appreciates being involved this way.

Granzow asked for any other written or verbal comments at this time. Greg Larson stated he would like a brief explanation of the process moving forward, the decision making involved in splitting the district, and asked for elaboration on how that decision will be made and what the steps are. Gallentine stated the decision on how to move forward on any project, would be up to the Supervisors acting as Drainage Trustees, whether the project moves forward and on what time schedule it moves forward, whether they want to make a decision today and

move forward or if they want to delay it. Granzow stated he thinks a decision on the project would be delayed, but as far as a decision on the reclassification report, we should address the question posed by Jon Kufus addressing the dollar amounts first, as far as preparing plans and specs, Granzow does not believe we are ready for that. Granzow stated we have the next hearing on the Engineer's report and asked for anymore questions on the reclassification alone.

Jon Kufus stated he is not complaining on the dollar amount, it is a go for him and a good investment for him, he had questions on the proximity as it did not seem equitable, but Jon is in for the dollar amount. Granzow stated the actions we could take today, is approve the reclassification report, knowing that if we don't move forward with the project, this reclassification report does nothing, and asked if that was understood by all. Gallentine stated that is correct, if this separate tile outlet does not move forward, this reclassification would not be in effect. Gallentine stated if there are no more questions on the reclassification, he asked for a motion to close the public hearing on the Reclassification Report.

Motion by Hoffman to close the public hearing only on the Reclassification Report. Second by McClellan. All ayes. Motion carried.

Granzow asks before the next hearing do we want to approve the Reclassification Report now or wait until the next public hearing. Not hearing a motion, Granzow called for a motion to open the Public Hearing on the DD 56 Engineer's Report.

Motion by McClellan to open the hearing on the DD 56 Engineer's Reports. Second by Hoffman. All ayes. Motion carried.

Granzow noted we have the same attendance, and opened the floor for Gallentine to introduce these reports. Gallentine spoke about the Engineer's Report first and addressed the Supplement a bit later. Gallentine stated the driving forces in the process were initially a work order was filed that requested improved drainage in DD 56, and possible ways to do that, in a way that would gain more capacity, either doing that from within the district boundaries or going to boundaries outside with the separate tile outlet. The area of investigation the report covers would be the entire length of the main tile, essentially starting at it's outlet in the open ditch of DD 26, the main tile then works its way upstream, pretty much due west, there is some jig jogs north south until it gets right east of County Hwy S21, then it jogs pretty much straight south and ends up 3/4 of a mile north of 250th St. That is the route we are talking about for the whole route. The history is typical for a district, it was started about 100 years ago, and was constructed in the years between 1914 to 1918, there were some initial issues with repairs done in the teens, 1920's, 1930's which is typical, and repairs have been made since.

Gallentine discussed the investigation, which included field observation and office observation. The field observation was really limited to observing the possible route bypassing the secondary outlet of the main tile, around E Ave. initially, which was limited to field observation and preliminary survey work. The office observation looked at the district history, and the history of repairs in the teens, 20's and 30's were a little unusual, as we assume these were an indication of poor workmanship, poor materials or an inadequate design. Ever since then, there have been over 100 repairs over the last 90 years, most of the details of those repairs have been lost to time, and may just be an invoice being paid, etc. It appears most of those repairs were either tile replacements due to blowouts or sinkholes, the repairs have been pretty consistent over time, and not accelerating. Office investigation included some calculations and records research. Based on calculations, it looks like the main tile was designed for a drainage coefficient of about .07" per day, at the downstream upper end limits, and the length of the main tile varied from .03" per day to .22" per day, those capacities are under the assumption that all of the drainage occurs through the main tile. We are aware that not every drop of water that falls in this district goes through the main tile, but could flow overland, these are the capacities, assuming it all goes through the main tile. Based on these conclusions, it became apparent the main tile had issues that required corrective action, which includes the history of failure and the number of repairs made. Gallentine stated it is unusual to have repairs made in the first fifteen years, and the regularity of repairs over the 90 years occurring, those causes can be a combination of overloading the tile, poor soil conditions, lack of soil cover, or differential capacity. We are not sure of the causes of all of these repairs are, but it does indicate a history of issues within the district. If we look at capacity, this district is far below capacity compared to what is currently recommended for agricultural production capacity, which is 1/2" to 1" today. If something is not done, the physical failures to the main tile will continue to accelerate as it gets older, which allows more soil to get into the main tile which restricts drainage, and you will have more sinkholes and blowouts.

Gallentine asked for questions on this portion of the report. No questions were presented.

Gallentine stated initially in the engineer's report, we talked about different improvement methods. The first one discussed was an upper main tile outlet, which we would sever the existing tile outlet and install a new main tile outlet for the district, that is what we assumed would happen if the reclassification moves forward. The

reclassification is based solely on this option. Gallentine pointed out in the original Engineer's Report, we were talking about 1/4 mile east of E Ave. and run northerly, that is solely based off the lay of the land in what is the shallowest depth for the tile. At the hearing the option was not preferred, and a second location was suggested, and that is what the supplemental report talks about. That gives you a new outlet for the upper portion of the district but does not do anything with the actual tile in the district, to alleviate those 100 year old tile that are still functioning.

Gallentine stated the next option is single tile upsizing, the entire length of the main tile, the main tile would be removed and replaced with a single new main tile of greater capacity, there are charts with the sizes in the Supplemental Report in the appendices. Some of the issues with this, is we may run into issues with soil cover depth, there may be issues where we have to mound dirt over it and there may be spots you may not be able to farm over. The next option is for the entire length of the main tile, we can install two new tiles that run parallel with each other, which would give you greater capacity and allow more soil cover. The next option is parallel tile upsizing, which leaves the existing main tile in place and installs one new parallel main tile with greater capacity. The downside to this is you have a new tile you are paying for, and still have an old tile you have to maintain, that can be a burden at times. The last option talked about in the Supplemental Report is an open ditch construction option, in which you remove the existing tile and install an open ditch for the length of the tile, that has it's own issues in acquiring right of way and farming around an open ditch, where as the custom has been to farm over the top of a buried tile.

Gallentine asked for questions on these options. No questions were presented.

Gallentine covered the assumptions on the above options, of which there are pros and cons for each. For the first option, due to the soil types and soil cover, all tile would have rock bedding which would give it some additional stability and strength, we are also assuming the existing ground elevations are still valid for the original design. We did not survey the entire route to determine the soil cover, it was based off the original design in order to conserve on the budget. The only tiles we would be improving, are the ones identified in the appendices, the remainder of the tile are not being modified or improved in any manner. Proposed sizes as shown in the appendices, are currently manufactured and either meet or exceed the 1/2" or 1" coefficients, they don't make tile like they used to, you used to be able to get 14" tile and 16" tile in one and two inch increments. This has changed a lot and they don't make those any more, so the proposed existing capacities we show in the appendices are based on the assumption that the main tile is installed per its original design and that it is functioning to it's full capacity, though we don't know that for certain as we have not televised the entire tile or gone to the expense to dig it up on it's entire length. Everything that is stated, as far as capacities and sizes, are just to serve lands within the district boundaries and where the assumption is that all water that lands within the district stays within the boundaries of the district. The single tile, dual tile upsizing and parallel tile upsizing may prohibit farming over it, due to lack of soil cover and may require some mounding up, especially with the single tile upsizing. Those 3 options, since we are replacing the main tile from stem to stern, should allow for a lower maintenance cost in the future since the whole thing is new. If we just do the main tile outlet or we went forward with the parallel tile option, that would have a future maintenance cost that is higher because you still have a 100 year old tile in place and being used as part of the system.

Gallentine continued, if we do the upper main tile outlet, and the open ditch construction there would a taking of the right of way, and that is not in any of the costs listed. The open ditch has right of way from within the district and the upper main tile outlet would have a right of way outside of the district. The upper main tile outlet does not increase capacity for those portions upstream of the main tile outlet, it just shortens the length of restrictions that the west portion would have to get to the get to the outlet itself, which would be the main open ditch in DD 26. It does not increase the capacity of the portions downstream, but it does take some load of off those who are downstream, it moves the headwaters or upper end of the tile downstream of the upper main tile outlet. DD 56 east and west would turn the upper area into a separate drainage district, and the assumption is that we have the right to do this in DD 26 without any charge. And since we would cut through from one district to another, there would be some deep installation depths up to 20' +/- on the upper main tile outlet installation. Historically improvements have been viewed by the NRCS as impacting jurisdictional wetlands, jurisdictional wetlands are a unique feature, in the fact that the NRCS treats that information like medical records, they are confidential. CGA, the Commission, the Drainage Clerk, nor the County can get a copy of those wetland determinations, the only ones that can get a copy of those wetland determinations are the landowners or tenants. The only way we can know that they exist is if the landowners provide them to us, Gallentine encourages all of the landowners to contact the NRCS to get a copy of their determination as soon as possible, if this project moves forward.

Gallentine asked if there were questions on the assumptions on these different options. No questions were presented.

Gallentine moved on to the opinion of probable construction costs listed in the report. These probable construction costs are based off of previous bid lettings and what we typically see on other projects. These probable costs

include the labor, equipment and materials supplied by the contractor, and the engineering fees, construction observation, project administration fees by CGA. These probable costs do not include any interest, legal fees, county administrative fees, crop damages, other damages, previous repairs, fees to date, if wetlands have to be mitigated, it does not include those fees, acquisition fees, or reclassification fees if applicable.

For the different options we have several different costs depending on what option is selected, these are broken down into the costs that the district pays, and the road crossing costs (Iowa code says any road crossing costs are paid by the road authority and not by the district).

The upper main tile outlet as covered in the original report (not the relocated location per the Supplemental Report) the district cost was \$468,425. Road crossing was \$22,281.25.

For a single tile upsizing with a 1/2" coefficient, the district cost was \$5,641,191.60. Road crossing was \$206,353.13.

For single tile upsizing with a 1" coefficient, the district cost was \$7,803,417.60. Road crossing was \$236,971.88.

For dual tile upsizing with a 1/2" coefficient, the district cost was \$7,448,733.60. Road crossing was \$281,318.75.

For dual tile upsizing with a 1" coefficient, the district cost was \$10,681,413.60. Road crossing was \$326,384.38.

For parallel tile upsizing with a 1/2" coefficient, the district cost was \$4,769,397.60. Road crossing was \$193,990.63.

For parallel tile upsizing with a 1" coefficient, the district cost was \$7,471,305.60. Road crossing was \$225,903.13.

For open ditch construction, the district cost was \$1,989,504. Road crossing was \$862,125.

Gallentine stated we did have a revised cost, in Revised Engineer's Appendix D, for the upper main tile outlet, at \$468,625.00, this was changed to \$1,070,880.00 and the road crossing costs stayed the same, changes were due to a typographical error pointed out by Larson after the report was filed, but before this hearing.

Gallentine went on to discuss the option listed in the Supplemental Report. After the initial hearing and landowner meeting, none of those options sounded as exciting as some different options, so the Supplemental Report was created. At Regular Drainage Meeting held on February 27, 2019, this was discussed, and the District Trustees asked CGA to draw up the Supplemental Report. This has some different options that were suggested, it combines the separate upper tile outlet with some improvements to the existing tile.

The upper main tile outlet with single tile upsizing, this option would sever the existing main tile and install the new outlet to the main open ditch, and divert the flows from the upper portion to the new outlet. Then for the specified length of the main tile, we would remove the existing tile and replace it with a single tile of larger capacity. The big difference between what was suggested in the original Engineer's Report and the Supplement, is the scope. For the portion of the main tile we are replacing, we are not doing anything in the east portion as far as a tile replacement, and we are replacing only a very limited section of about a mile in the west portion. We would not be doing a whole main tile replacement, we are just doing a specific section along with the main tile outlet. Gallentine stated the location of the main tile outlet has changed based on a landowner suggestion. It has changed to approximately 1/4 mile east of D Ave., but we would still end up in the open main ditch of DD 26.

Gallentine stated the second option is the upper main tile outlet with dual tile upsizing. Again the main tile outlet stays the same, but the existing main gets replaced with two tile instead of one large tile.

Gallentine stated the third option is to do the upper main tile outlet and then we would install a new tile parallel with the old tile, to get to the desired 1/2" or 1" of capacity. Gallentine stated earlier Larson asked if it was possible to just do the upper main tile outlet and not touch any of the existing tile, and yes that is an option. That option is not specifically addressed in these reports, and it does not have a separate cost listed.

Gallentine went on to ask if there were any questions on these options listed in the Supplement or the original Engineer's Report. No questions were presented.

Gallentine went on to cover costs of these options in the Supplemental Report. Again, estimated costs were based on previous bid lettings.

For the upper tile outlet with single tile upsizing , the cost to nd a 1/2" coefficient, the district was \$1,367,445. Road crossing was \$54,697.

For the upper tile outlet with single tile upsizing and a 1" coefficient, the cost to the district was \$1,872,642. Road crossing was \$64,041.

For upper main tile outlet with dual tile upsizing with a 1/2" coefficient, cost to the district was \$1,894,818. Road crossing was \$64,975.

For upper main tile outlet with dual tile upsizing with a 1" coefficient, cost to the district was \$2,433,147. Road crossing was \$75,253.

For upper main tile outlet with parallel upsizing and a 1/2" coefficient, leaving the old tile in place and put a new one next to it, cost to the district was \$1,218,087. Road crossing was \$46,288.

For upper main tile outlet with parallel upsizing and a 1" coefficient, cost to the district was \$1,800,705. Road crossing was \$59,369.

Gallentine stated regarding costs, with the current Covid-19 situation, it will definitely affect costs in the contracting world. Gallentine does not have a feel yet whether it will make costs lower or higher, it is hard to say right now.

Granzow asked if water is flowing right now. Gallentine replied water is flowing right now in a reduced capacity, these options are improvements, it is enlarging the system in some options and not just necessarily a repair. Gallentine asked for any questions. No questions were presented.

Gallentine moved on to the recommendation section of the Supplemental Report. It is their recommendation that we hold the required hearing, which we are doing today via zoom, CGA recommends one of the options from either the original Report, the Supplemental Report or some modification of those options be adopted. One of the options was to confirm if DD 56 can be split into two districts, this option was done in the Reclassification Report if that moves forward. One option is to confirm that the upper main tile outlet can discharge freely into the main ditch of DD 26, Gallentine has no reason to think that it can't. The other option would be to direct plans and specifications for the proposed option to be drawn up by CGA, and / or go forward with receiving bids from contractors, and /or go forward with awarding those bids to contractors, and/or proceed with construction. Gallentine stated those options are up to the District Trustees, if those are acted upon and on what schedule that happens.

Granzow stated since this meeting is being held by zoom, he does not want to take any actions at this point, but he would like to narrow some options down. He would like to send postcards out with options possibly, one being do we want to split, yes or no. We will not make a decision based off these postcards, but we need to narrow down some of these options to just the ones we are interested in as there are quite a few to choose from. Granzow thinks some of these options we can discard, like dual tile upsizing for a 1" coefficient, at \$10,000,000, we may want that option but no one wants to pay for it. Granzow assumes the \$7,000,000 and \$5,000,000 options are off the table, Granzow needs to know if we want to do anything at all. Granzow stated if water is flowing our job is done, and these would be improvements we can do for you, if we do not want to spend money, we don't have to. Granzow asked for landowner input on this, as it is your public hearing.

7. Written Or Verbal Comments/Discussion

Greg Larson spoke about the option for the Supplemental Report, where the district is split, and there is a new outlet with just a portion of new tile. Larson stated as he looks at that after we have the proposed reclassification into two districts, everything from the west end of the new main tile, they will not be able to hook into the new main tile or into the outlet, so they basically get zero benefit. They represent over the majority of the acreage in the west portion, and they will pay a strong majority of the costs for the project. Larson wonders if it wouldn't make more sense, if we were looking at the western portion, Larson hates to add in options but to him it makes sense, if we were to split the districts, to do the outlet as a first project then come back in a couple years and look at replacing the entire main tile in the west district. Larson feels then everyone would benefit from it, Larson's own costs for the supplemental options would be well over \$100,000 and he would receive zero benefit from that option.

Dan Kumrow stated he has several pieces of ground in the whole district, he has a little bit of ground in the west portion, if we start exceeding a million dollars, his costs would be well over \$100,000, that is a lot for him, to get

the project starting and in the years going forward this would be a starting point from which we could expand in the future.

Regina Neville appreciates the comments made by Larson, and asked if there was a way to consider a metric that addresses the equity of cost and benefit and appreciates all of the recommendations, and the level of detail in those recommendations, to look at it more closely. Neville thinks it is wholly appropriate when looking at the next step to figure out what benefits the most in terms of our cost investment.

Hoffman stated we should treat this hearing as we did the Drainage District hearing held last week, it is not fair to make any recommendations or decisions today, we should poll the landowners and reconvene after this pandemic activity is over, and get the best participation and feedback. Hoffman was glad some of our remote participants liked the zoom option, it is not difficult to do, but would like landowners to have the option to be present in person as well. Hoffman stated today we should just acknowledge the reports and look to reconvene at a later date. Granzow asked if Hoffman felt we should pull any options. Hoffman stated at this point, he thinks there are so many options, it would be better to reconvene and let people absorb all of the information, then move forward at that point. Granzow asked for further comments. Kathy Colvin asked if the landowners had received copies of the Engineer's Reports and Supplemental Reports. Smith stated the documents are available on the website and she can provide paper copies by mail if any of the participants would send Smith an email, with address details.

Granzow asked for any other comments or questions before we close the public hearing. No comments or questions were presented.

8. Close Public Hearing

Motion by McClellan to close the public hearing. Second by Hoffman. All ayes. Motion carried.

9. Possible Action

Motion by Hoffman to acknowledge the Engineer's Report, Reclassification Report and Supplement to the Engineer's Report. Second by McClellan. All ayes. Motion carried.

Granzow asked if we need to do anything with the Reclassification report at this time. McClellan stated we should wait, Hoffman concurred.

Granzow stated we are not ready to direct CGA to prepare plans and specs at this time. The date for the next public hearing was discussed. Hoffman suggested we wait until after planting is done, and be respectful of the landowner's time and hope things are back to normal, McClellan agreed.

10. Other Business

Granzow stated this could be a landowner meeting as we have held the public hearing over Reports, options and costs today. Date for the next public meeting was discussed for July 8, 2020 at 10:00 am on DD 56, if it would need to be a public hearing we would have time to set that event if meeting in July.

Motion by McClellan to hold a DD 56 Landowner Meeting regarding options on these Reports on July 8, 2020 at 10:00 am in the large conference room at the Courthouse. Second by Hoffman. All ayes. Motion carried.

Granzow encouraged all the landowners to come and bring their input, he hopes that we will be able to hold an in person meeting at that time. Meeting notices will be evaluated closer to that date to reflect if that is an option or if we will hold the meeting electronically. Granzow would like landowner input at the July meeting about which options they would like to remove from consideration.

11. Adjourn Meeting

Motion by McClellan to adjourn. Second by Hoffman. All ayes. Motion carried. The Trustees thanked all those who participated today.

REGULAR DRAINAGE MEETING**Wednesday, April 1, 2020 9:30 AM****Large Conference Room****This meeting was held electronically due to Covid-19 concerns.**

4/1/2020 - Minutes

1. Open Meeting

Hardin County Drainage District Chairperson Lance Granzow opened the meeting. Also present were Trustee BJ Hoffman; Trustee Renee McClellan; Jessica Sheridan, Environmental Health; Angela De La Riva, Economic Development; Lee Gallentine of Clapsaddle-Garber Associates; and Denise Smith, Drainage Clerk.

Motion by McClellan to recess and go to DD 56 Public Hearing, with Regular Drainage Meeting to follow the Hearing. All ayes. Motion Carried.

Motion by Hoffman to reconvene Regular Drainage Meeting. Second by McClellan. All ayes. Motion carried.

2. Approve Agenda

Motion by McClellan to approve the agenda. Second by Hoffman. All ayes. Motion carried.

3. DD 9 - Consider Bids With Possible Action On Bids

DD 9 - Bids received at the March 25, 2020 DD 9 Bid Letting for the Upper Main Tile Diversion project were considered. Gallentine stated the bid tab gives us some options, the base bid is for polypropylene (plastic) tile, if you go with the base bid, the low bidder would be Farm Tile Pro, \$117,010. If you go to the alternate bid which is concrete pipe, the low bidder would be Gehrke, Inc, at \$122,180. If we look at the add alternates, those would mainly apply if we went with plastic pipe, like mandrel testing, televising of the tile, trench compaction, access points, etc. Gallentine stated there is not much difference between concrete and plastic here, only about \$5,000. Engineer's estimate is \$140,000.

Hoffman asked what is the lifespan of polypropylene compared to RCP (reinforced concrete pipe). Gallentine stated polypropylene hasn't been out long enough to tell what it's lifespan is, supposedly it is inert, and should last forever, they should have comparable lifespan, the RCP installation is a little bit more bulletproof and is a bit more forgiving if the contractor is off on their methods.

Hoffman stated he is leaning towards Gehrke's bid with the reinforced concrete pipe. Granzow asked who is the plastic company. Gallentine stated we specified to use Prinsco, he had heard from a few contractors that ABS was still quoting the project even though they were not an eligible supplier, he told contractors if they use ABS products there was a discussion that need to be had, as they were not the specified supplier. Gallentine stated ABS left us with issues on a past project with contractor DeSchamp. McClellan asked which contractor selected ABS as the supplier. Gallentine stated he did not remember which one but had made it clear ABS was not an eligible supplier, and should not be quoted.

Granzow stated from his standpoint, looking at concrete for the dollar amount difference, you could have \$5,000 worth of add ons just trying to put plastic in. Hoffman asked about the bid qualification statement on file from Farm Tile Pros, we should not have any problems getting that from Gehrke. Gallentine stated that should not be a problem at all, our process if whoever is the low bidder, we just ask for that from them as we did not know how it would shake out, in this case it was Farm Tile Pro. Granzow and Hoffman agreed we have used Farm Tile Pro in the past with good results, Granzow stated he is more comfortable with concrete in this case. Gallentine stated Farm Tile Pro did not submit a bid for concrete and so they cut themselves out of that option.

Motion by Hoffman to approve Gehrke, Inc.'s bid for reinforced concrete pipe on the DD 9 Alternate Bid in the amount of \$122,180. Second by McClellan. All ayes. Motion carried.

Hoffman stated he believes this will be a really good product that will stand the test of time and he likes that we can do business with a local contractor, that is not his only consideration, but he wanted to acknowledge that. Granzow stated that although he like the local contractor option, he believes as much trouble as we have had with plastic tile, for no more money difference than it is, he is so much more comfortable with concrete. If it were a large price difference, Granzow would consider the plastic, as we are so close, he feels concrete is the way to go. Hoffman and McClellan concurred.

Gallentine stated if we add any of the alternates like mandrel testing or televising, then plastic isn't cheaper anymore. Granzow stated for all the reasons, concrete is the best choice. Gallentine will get contracts drafted up and sent out to Gehrke Inc..

4. DD 25 - WO 01- Discuss W Possible Action - Contractor Update

DD 25 - WO 1 Gallentine provided an update on WO 1, this is the district where we went out and found out there is a shallower private tile and a deeper district tile, and we planned a combined crossing to take the flow from both of those tiles. Gallentine stated the District tile east of the tracks, we had planned on televising that to find the issues, as every time we have been in that tile it is full of mud and water. McDowell's went out and found the tile up to south fenceline, Gallentine referenced the map, and said the tile was still full of water. We proceeded to locate down towards the main tile, and discovered in the 1974 project they put in a tile to replace Lateral 3. What happened in 1974, was they connected to the downstream end of the main, which is fine, but on the upstream end, instead of finding the district tile, they didn't realize there were two tile there, and they connected to the shallower private tile.

Gallentine went on that the original lateral 3 is inside the railroad ROW, and is plugged with tree roots and has been since 1974, and then the upstream line has no way to discharge as it is plugged for that distance. Essentially what we will have to do is install a new outlet, and offset it so it is out in the field, and not in the RR ROW. In 1974 they didn't know there were two tile there and they dug down until they found one, and that is the one they hooked up, unfortunately it was not the right tile. Gallentine stated this would be an additional 1,300' of tile, the current contract price is \$38/ft, so that will add roughly \$50,000 to the project. McClellan stated it does not look like we have much of a choice. Gallentine stated we do not have much choice if we want the deeper District tile to function, it was a mistake in 1974. Granzow asked if we can connect onto the yellow line shown on the map, and it would have to have the right grade somewhere in it's length. Gallentine stated, it could be connected onto but somewhere but you will be close to the main, but at what point do you just go to the main, if we are within 200' of the main tile, why not just run to the main. Gallentine is using 200' as an example, he is unsure at what point we could connect into the main.

Granzow said we could knock \$50,000 down to \$25,000 just by cutting the distance in half, it may be worth investigating. McClellan asked what the size was on those tiles, Gallentine stated both tiles are 12", and we would be tying two 12" tiles together until it gets to the main. Granzow asked if the yellow tile on the map is working, Gallentine stated yes, the yellow line on the map is the shallower tile, and it is flowing. Granzow stated he was unsure how much money the landowner's were willing to spend, but he knows they were willing to upsize the crossing for the benefit of everyone. Granzow stated that would be an improvement if we put a new tile in as we are now running two tiles. Gallentine stated overall you wouldn't have any more tile out there than before 1974, because there has always been a private tile and a district tile, the difference would be the district has paid to put in the 1974 line and they would be paying for this new line now, and utilize them both.

Granzow states we should try to find that yellow line on the map, to see if we have to run the full line or can we connect into it versus running a complete line, so if it were only 600' to connect to the yellow line we could be at a savings. Gallentine stated that would be correct, but noted we would be taking two 12" lines and putting the flow into one 12" line. Granzow stated we could give them what they had again for \$50,000, that is a lot of drainage. Granzow is still concerned about the trees in the ROW getting into the tile. Gallentine stated the trees are really a concern where the orange line on the map gets into the RR ROW. Granzow asked if we have reclassified this. Gallentine stated we have not reclassified this as the entire district is paying for this, not just Lateral 3. McClellan asked what kind of tile is in there now. Gallentine stated the orange line on the map is butt joint concrete, and the blue line on the map is the original clay tile. McClellan asked, as we get closer to the tracks and trees, is that something we can change the tile to something more resistant to tree roots. Gallentine stated right now this project is in concrete pipe, we can switch to gasketed concrete, but tree roots will still go through concrete.

McClellan stated no matter what we do, we will be close to the trees, Gallentine stated we could parallel the orange line, so one is not weaving in and out from the other and hook up farther to the east. Granzow stated the red line will eventually not be connected underneath the tracks, it would be connected to the light blue line. Gallentine stated when we put the joint crossing in, all the water dumps into the lower tile, and goes through the larger crossing, the only way the upper tile functions is when the lower tile is surcharged enough. McClellan asked can we connect farther north, can we move the whole thing away from the track, instead of connecting right there by the tracks. Gallentine stated it would add at least 200', or an additional \$8,000. It was discussed that this may be a better option as it would keep away from the tree roots along the tracks. Gallentine stated that currently the yellow line is only about 5' away from the RR ROW. McClellan stated you would still need RR permission to work on it there, how far out do we need to be to not require RR permission to work on our tile, we should go out that far. Gallentine stated as long as you are out of their ROW you don't need RR permission, it is just really hard to work on tile with a backhoe only 5' from their ROW.

Gallentine stated they may not be happy about the costs, but hopefully the landowners can get better drainage than they have had since 1974. Granzow asked if we need to hold a public hearing on this cost, Gallentine stated it is part of an existing project for which we have already held a Public Hearing for, Smith asked if this would be a change order. Gallentine stated this would be a change order, Gallentine stated right now in the contract we have 1,000 ft of pipe to replace the light blue line east of the railroad tracks as our assumption has always been full of water, if we can get it to drain out we may not need that 1,000' of pipe, that would be a cost savings towards the project, we won't know that until we get the light blue line outleted.

Granzow stated he would like to call the landowners in to discuss this option, to explain to them the changes in this and why we are presenting this option. Discussion was had about possibly taking action in a zoom meeting, as we have delayed actions in some recent hearings and meetings. Granzow pointed out that this is a project we are currently in the midst of. Hoffman stated calling in the landowners would be a good idea, and explain our findings. Smith stated if she got postcards out right away, we could add this to the top of the April 15, 20 agenda for landowner feedback. Gallentine stated contractor McDowell is currently working on other private spring tiling and had plans to be in the area in May, so this would give us time to meet with landowners.

Smith will send postcards out asking landowners to call in for a meeting on April 15th, via zoom. Gallentine will provide Smith a synopsis of the change and a map with the proposed new line to be added to the District Project Page for DD 25.

Motion by McClellan to direct Smith to send postcards to DD 25 landowners and invite them to attend the meeting on Wednesday, April 15, 2020 at 9:30 AM. Second by Hoffman. All ayes. Motion carried.

5. DD 14 WO 290 - Discuss W Possible Action

DD 14 WO 290 - Landowner Dave Sweeney reported 2 blowouts in the ROW, one is 4' in diameter and 4' deep, with broken VCP tile in the bottom, south of their lane is an additional 3' blowout with broken VCP tile in the bottom. Sweeney emailed to update Smith that he found an additional blowout 75' south of the two already reported. Sweeney also submitted photos for the Trustees to review.

Motion by Hoffman to instruct CGA to investigate and report their findings back to the Drainage Board. Second by McClellan. All ayes. Motion carried.

6. DD 34 - WO 289 Discuss W Possible Action

DD 34- WO 289 - Corey Hake reports plugged tile intake in ditch, ponding in the field on the north side of the road, water is moving across his field. It is located on 300th St, about a 1/2 mile east of Zublin Ave. It is DD 34 and the area looks like it is right on DD 34 tile. Granzow suggested sending Secondary Roads out to investigate, Hoffman said this will save some expense if it is our tile.

Motion by Hoffman instructing Engineer Roll to send someone out to investigate, and report back to the Drainage Board and /or repair the issue. Second by McClellan. All ayes. Motion carried.

7. DD Big 4 - WO 2020-5 - Discuss W Possible Action - Midland Power Drainage Utility Permit Application

DD Big 4 - WO 2020-5 - Midland Power Coop submitted a Drainage Utility Permit Application for an overhead line rebuild of 4 miles in Alden Twp, in Sections 04, 05, 06, and 08. Smith referenced the application and stated Midland will cross over District tile in two points of the rebuild. Gallentine stated Midland has been one of the few utilities that contact us and are easy to work with.

Motion by McClellan to approve the Midland Power Coop Drainage Utility Permit #2020-5. Second by Hoffman. All ayes. Motion carried.

8. Other Business

DD 143 project was discussed. Granzow stated he had received some phone calls after the hearing, and we had sent Taylor Roll and Calvin Hiland out to look at it last week. Taylor replied to Granzow, since the Trustees duty is still to fix the drainage tiles or system, then it is in everybody's interest, especially the city, to repair what we have instead of creating additional infrastructure. Granzow stated Roll really conveyed, why go the expense of connecting to another district or adding additional infrastructure, we should just fix what we have. Granzow stated he spoke with Hiland, who was concerned about the cost of a possible pumping station needed for rerouting the tile around town, and felt we should not spend the additional money, just make the needed repairs. Granzow's feelings are that if we were to route the district tile around the town, the City of Radcliffe would become a lateral,

meaning when they do have to fix it, all the costs would be on the city parcels, where as right now, it should make sense to have all the landowners are paying for it as well. Granzow stated he would like to have a conversation with the City of Radcliffe, is do they have an ordinance that trees should be cut out of their right of way, as we have no easement, and should we ask them to have an ordinance to cut these trees out and perhaps co-share the costs, or they can do it all on their own. If anything, cutting the trees out of the right of way may lengthen the amount of time we have to improve the drainage that we already have, maybe it would be improved by just cutting the trees. Granzow stated he felt that is a conversation we should have with the city of Radcliffe.

Gallentine stated the Trustees do have right of way, and it is the same as the City's. Granzow stated if we have right of way, we can still take the trees out at District expense, but still thinks the City should be responsible for some of these trees. Gallentine stated the option that is still out there, was Handsaker's idea of creating this bypass on the south side of Hwy 175. Granzow stated what he got from Roll, was to just fix what we already have, and Hiland's opinion was the same. It wouldn't be beneficial to the town, the District, and would double the bill for the Golf Course, Granzow stated he still feels the best option is to sleeve the full length of the tile, and get rid of trees in the ROW, and encourage people to take some down outside of the right of way. Granzow stated if we start with the bare minimum of taking the trees, and if the City would co-share that cost, that would be a great move. McClellan stated that may not take care of the drainage problem, Granzow stated the roots should start shrinking if we kill the trees, as it has water flow, and if we bypass anything they will still have trouble with flooding on the west side of town.

Gallentine stated the only upside to the District by putting in the bypass, is you can make the town a separate district then turn it over to the City of Radcliffe. Granzow stated that would be expensive for both the town and farmers as well. Gallentine agreed, and just wanted to make them aware of the option. Granzow does not think it is a feasible option for anyone in that area, as it would impact the town heavily, instead of \$500 assessment town parcels may face a \$50,000 assessment. Gallentine stated as a town there may be CDBG funding options available to the town that the District would not qualify for. Hoffman stated they could apply for a CDBG block grant, but a drainage district can't. Granzow stated he felt it would still be a drainage district, albeit controlled by the City, it still goes through farm ground to outlet. Gallentine stated maybe that is a conversation to have with the City. Hoffman thinks that is a good option, that may take some of the fear out of it. Granzow stated, we are still charging the landowners to re-route, the City as a landowner would have to pay for that re-route also, which is twice the cost of a liner at minimum. McClellan asked if the costs for a re-route could exceed a million dollars. Granzow stated it is possible and that is if we re-route it just to the other side of the Golf Course, that is not even taking it all the way to the creek. Granzow thinks these are all good options, if we were recreating the district, I would look at not going through town, but we are already there. Gallentine stated at the time the district was put in it made sense.

McClellan stated she leaned towards fixing it with a liner for now, and leave any larger repairs or changes for later, in the hopes that Radcliffe would grow as a bedroom community for Ames, and hope that their valuation would grow before making larger changes, she felt now is not the right time for a re-route as the majority of people are not on board for a project of this size at this time. Hoffman stated he felt there is a push to go to a private Trustee District as well. McClellan stated we may make the decision to do the repairs, and then they may take over the District and kill the project, which would make a City against framer issue. Hoffman would hate to drive that wedge. Granzow stated if he had to make a decision today, it would be to cut out the trees, tordon them and see if that improves drainage flow, that would be his lightest recommendation. Granzow stated it could be lined a couple of years down the road if drainage does not improve after removing the trees. Granzow stated if we introduce new options, we would have to hold another hearing, however we should meet with the City of Radcliffe and see if they will help us with the tree situation and would like an opinion from attorney Mike Richards on who is the authority that pays for the street crossings on this project.

The options presented for repair were discussed, the tile cleaning and tree removal estimate was written to include an estimated right of way of 100', not the 66' right of way later determined, so that cost may be less as fewer trees would be removed at a 66" ROW. Partial tile lining did not seem to be a popular choice at the hearing, and the tile cleaning presented concerns of destroying the existing tile if the cleaning method was used on old clay tile. There was the same concern for tile lining as it would require cleaning before being lined, and there were a lot of utilities on that side of the road. Gallentine stated Chuck Raska, from the City of Radcliffe, had concerns about this as well, and noted all utilities would need to be located. Granzow stated he is not for the offset tile lining as it the same money as a full tile lining, why mess with it as it would not include hooking up half of the private tiles too it, and you have all the existing utility infrastructure to deal with. Granzow stated the partial tile lining is a band aid on an aging system. Granzow would like it to be added to the agenda next week to discuss the options presented by Handsaker at the hearing.

Gallentine stated that on drainage projects contractor Seward has been doing that are tree removal only, CGA has not been on-site the entire time the contractor is out there, to conserve budget. Gallentine asked if the Trustees wanted CGA on-site the whole time Seward is removing beaver dams or would the Trustees prefer just before and

after photos of the site. Granzow stated that Seward could provide before and after pictures to CGA, Gallentine agreed that this is a good option. Gallentine stated the only they would not be able provide documentation on hours, but had no reasons to doubt the contractors report. Granzow asked if we are making an exception for one person in the lottery system. Gallentine stated at the moment Seward is the only contractor that has been working on work orders in the lottery, Granzow stated we do not need to document he was there, if Seward or any other contractor, reports work done, and we can document that the work is complete, and the reported hours look accurate, it probably is accurate. Gallentine stated he does not think it is a great use of CGA's time or District funds to have CGA watch a contractor pull a beaver dam, the Trustees agreed.

Hoffman stated he had an update from contractor Paul Williams, Williams stated he should have his new camera system in four to five weeks. It was agreed that it was good to have Williams available again for televising work.

9. Adjourn Meeting

Motion by McClellan to adjourn. Second by Hoffman. All ayes. Motion carried.

REGULAR DRAINAGE MEETING

Wednesday, April 8, 2020

Large Conference Room

This meeting was held electronically due to Covid-19 concerns.

4/8/2020 - Minutes

1. Open Meeting

Hardin County Drainage Trustee Chairperson Lance Granzow opened the meeting. Also in attendance were Trustee Renee McClellan; Landowners Steve Perry, Curt Groen; Lee Gallentine of Clapsaddle-Garber Associates (CGA); and Denise Smith, Drainage Clerk.

2. Approve Agenda

Motion by McClellan to approve the agenda. Second by Granzow. All ayes. Motion Carried.

3. Approve Minutes

Motion by McClellan to approve the minutes to Drainage District 143 Hearing dated 03-25-20. Second by Granzow. All ayes. Motion carried.

4. Approve Claims For Payment

Motion by McClellan to approve payments with a pay date of Friday, April 10, 2020. Second by Granzow. All ayes. Motion carried.

DD 22 WO 176 & 192 - Prof Svc After 2-22-20 to 3-21-20	Clapsaddle-Garber Assoc	\$ 635.40
DD 1 WO 244 - Prof. Svs After 1/31/20 to 3/27/20	Clapsaddle-Garber Assoc	\$7,839.30
DD 160 WO 283 - Prof Svc After 2/28/20 to 3/27/20	Clapsaddle-Garber Assoc	\$ 702.80
DD 131 WO 275 - Prof. Svc After 1/31/20 to 3/27/20	Clapsaddle-Garber Assoc	\$1,499.25
DD 9 WO 229 - Prof Svcs After 2/28/20 to 3/27/20	Clapsaddle-Garber Assoc	\$1,098.30
DD 25 WO 1 - Prof Svcs After 2/28/20 to 3/27/20	Clapsaddle-Garber Assoc	\$2,135.80
DD 31 WO 278 - Prof Svc After 1/31/20 to 3/27/20	Clapsaddle-Garber Assoc	\$2,545.80
DD 48 WO 274 - Prof Svc After 1/31/20 to 3/27/20	Clapsaddle-Garber Assoc	\$3,613.05
DD 55-3 WO 251 - Prof Svc After 8/23/19 to 3/27/20	Clapsaddle-Garber Assoc	\$ 217.70
DD 55-3 WO 201- Prof Svc Afr 1/31/20 to 3/27/20	Clapsaddle-Garber Assoc	\$ 451.45
DD 86 WO 252 - Prof Svcs After 2/2/20 to 3/27/20	Clapsaddle-Garber Assoc	\$4,836.30
DD 124 WO 259 - Prof Svcs After 8/23/19 to 3/27/20	Clapsaddle-Garber Assoc	\$1,478.70
DD 143 WO 241 - Prof Svcs 1/31/20 -3/27/20 Surv. Rpt	Clapsaddle-Garber Assoc	\$ 487.80
DD 143 WO 241 - Prof Svc 1/31/20 to 3/27/20 Sup Rpt	Clapsaddle-Garber Assoc	\$ 487.80
DD 143 WO 261 - Prof Svcs 8/7/19 to 3/27/20	Clapsaddle-Garber Assoc	\$ 643.60
DD 167 WO 208 - Prof Svcs After 4/26/19 to 3/27/20	Clapsaddle-Garber Assoc	\$4,827.55
DD Big 4 Main WO 247 - Prof Svcs 5/31/19 to 3/27/20	Clapsaddle-Garber Assoc	\$ 514.00

5. DD 102 - Discuss W Possible Action - Wetland Project #HAR862018C Rock Alternative Bid Feedback

DD 102 - Smith had sent postcards out to the landowners in DD 102 requesting feedback on the rock bedding alternative for the #HAR862018C Nutrient Reduction Wetland Project. The postcards gave landowners two options, they could choose; yes- I select the rock bedding alternative or no, I do not choose the rock bedding alternative. Smith sent out 23 postcards, and received 13 postcards back that selected the yes option, Steve Perry spoke with Smith earlier that day on the phone and said he was a yes also, but had some comments for the Trustees, and Smith received 2 no replies. All together we had 15 cards returned and one phone call from Steve Perry.

Steve Perry stated his only concern was how this would be billed, would this be billed on pre-reclassification based on current assessments or on post re-classification. Perry stated he hoped it may cost him less, after it is all said and done, but is not 100% sure. It is unfortunate that the low bid on the entire project had the highest cost on the rock bedding alternative. Perry asked how much rock bedding they were including in that and how far up the pipe they are planning on going with the bedding, and would it be any more than a couple inches of bedding if at all. Gallentine stated the rock bedding has different classes, the minimal class of bedding has just a few inches up the pipe or the other class would include rock halfway up the pipe, it depends on what soil type you have and if you

are in a street, you will need more protection than if you are in an ag ground. Perry stated most of the pipe will be in the ditch or off to the side of the ditch, where it will see minimal point load traffic, and he is questioning how far up the pipe we need to go and if we can save some money on this, as \$28,000 is a lot of money for a couple inches of rock on a 30" concrete pipe.

Granzow stated regarding the classification, that he thought we were going to reclassify this then assess, Perry knew a reclassification was in order, and logically it should be based on a reclassification basis and who knows how that reclass will shake out, but hopes that he may come out better than he currently stands. Perry stated at \$28,500 he would be looking at \$7,000 - \$8,000 assessed just for his portion. Granzow stated the main would be gone, and we would have to make a new main and there will be a small lateral that drops into, but remembered we had to reclassify this as part of that project, and we can review the minutes to determine what was decided at that time. Perry asked what the time line looks like for the rock bedding as construction does not begin until June 1st, and wanted to know when the Trustees needed final approval for the rock bedding. Gallentine did not recall seeing a timeline, and Gallentine reviewed the plans provided to him by Mike Bourland, which were made before the rock bedding alternative was presented, so Gallentine stated he does not know how much rock depth was specified. It was discussed that although the rock bedding was not specified by the engineer, it is insurance on this project against future issues.

Granzow stated we should hold off on a decision until we know the depth of the rock bedding, and we should review the minutes for the decision on whether this assessment would be based on the current classification or the reclassification. Granzow requested Gallentine provide more info on the rock bedding depth for next week's meeting.

Motion by McClellan to table the discussion on DD 102 Wetland Project Rock Bedding Alternative until next week's Regula Drainage Meeting. Second by Granzow. All ayes. Motion carried.

Smith will add this to the agenda for next week's regular drainage meeting.

6. DD 56 & DD 168 -WO 2020-6 - Discuss W Possible Action - Midland Drainage Utility Permit Application

DD 56 & DD 168 - WO 2020-6, Midland Power Coop has submitted a Drainage Utility Permit Application for a 3 mile overhead line rebuild in Sherman Township in Sections 08, 17 and 19. It does come near some district tile, Gallentine stated Midland has been good to work with.

Motion by McClellan to approve Midland Power Coop Drainage Utility Permit Application 2020-6 in DD 56 & DD 168. Second by Granzow. All ayes. Motion carried.

7. DD H-H 4-122 & DD 55-2 - WO 2020-7- Discuss W Possible Action - Midland Drainage Utility Permit Application

DD H-H 4-122 & DD 55-2 WO 2020-7 Midland Power Coop has submitted a Drainage Utility Permit Application for a one mile overhead line rebuild in Sherman Township, Section 19, in H-H 4-122 & DD 55-2. Smith stated H-H 4-122 is a joint district with Hardin County, and asked if Hamilton County needed to approve this Permit also, Hardin is the control County on this one. Granzow stated the only County that required joint approval if we were the control County was Story County, but it would be great to share with them.

Motion by McClellan to approve Midland Power Coop Drainage Utility Permit Application 2020-7 in DD H-H 4-122 & DD 55-2, with the note that Smith will forward this on to Hamilton County. Second by Granzow. All ayes. Motion carried.

Granzow stated if Hamilton County would like to approve this Permit also, we would like a copy of their minutes.

8. DD H-F 2 WO 286 - Discuss W Possible Action - Franklin Co. Waiver

DD H-F 2 WO 286 - This is the request for work by Landon Aldinger, Franklin County had requested that Landon Aldinger sign a waiver stating he acknowledges that if this drainage issue is not found to be a District tile issue, that Aldinger will pay for any investigation costs himself, the Drainage District would not pay these investigation costs. Aldinger has signed this waiver, and Franklin County Trustees only meet on Mondays, Smith requested direction on how to proceed, if we need Hardin County Trustee approval along with Franklin County Trustee approval. Franklin is the control County.

Motion by McClellan that Hardin County has acknowledged this Work Order request and signed waiver and to move this Work Order to Franklin County for their approval.

Granzow stated we don't require this in our County, and although the issue lies in Hardin County, as Franklin is the control County, it should be done to their standards/rules, if Franklin County needs our approval, to please let us know. Smith will send this on to Franklin County.

9. Discuss W Possible Action - Wind Turbine Ordinance And Drainage Utility Permit Language & Process
No feedback has been received yet from attorney Mike Richards on our previous discussions of the Wind Turbine Ordinance and Drainage Utility. Gallentine did share a copy of the Franklin County Wind Turbine agreement with Richards.
10. Other Business
11. Adjourn Meeting
Motion by McClellan to adjourn. Second by Granzow. All ayes. Motion carried.

DD 102 Landowner Meeting
September 4, 2019
1:00 PM

9/4/2019 - Minutes

1. Open Meeting

Hardin County Drainage District Board of Trustees Chairperson, Renee McClellan, opened the meeting. Also present were Trustees, Lance Granzow and BJ Hoffman; Landowners Lisle Cook, Becky Schnormeier Tuper, Joyce Schnormeier, Wanda Lemme Alexander, Dean Schnormeier, Kent Reinert, Steven Perry, Brent Perry, Brian Perry, Dennis Barrick, Laura Bybee, Nicky Williams; Lee Gallentine of Clapsaddle-Garber Associates (CGA); Mike Richards of Davis Brown Law Firm; Mike Bourland, Iowa Dept. of Agriculture & Land Stewardship; and Becca Junker, Drainage Clerk.

2. Approve Agenda

Hoffman moved, Granzow seconded to approve the agenda as presented. All ayes. Motion carried.

3. Explanation Of Project

The meeting was turned over to Bourland who explained that a wetland was going to be built to remove a significant portion of the nitrates. After looking at the sight and it meeting the criteria, an engineer was hired (WHKS) and a site plan was developed, which was given to all the landowners at the meeting. Bourland explained what the requirements were for the wetland. A traditional CREP wetland has a sheetpile in which water flows over, in their process, Iowa State has looked at taking advantage of existing depressions instead of building a sheetpile weir that can be 60-80' wide. They will take advantage of an existing pothole, and asked the drainage engineer to look at that, and are proceeding down this path.

Bourland continued that we have met with landowners and the Drainage Board, and now we are presenting our plan. We need to relay some of the tile, and some of the requirements are that the invert of the tile are maintained 1' above the normal pool elevation. In order to have drainage, the tile needs to be relaid as it does not have the elevation it needs to drain. The site plan references where we plan to intercept the existing tile, and run a new tile to drain into the wetland, the blue line on the plans shows the normal pool elevations, the red shows the 100 years flood balance, which reflects how high the wetland would raise during a 100 year storm. The dashed black line is the easement area, the southwest corner is a little more at an angle, on the south end there is main that needs to be relaid, and the reason it is shifted more to the west to get the elevation to outlet into the pool and the other is to have adequate cover. The existing lateral 13 comes in and there was talk about that becoming private tile, but it is unsure what will be decided at this time.

Bourland went on there is also Lateral 8 and Lateral 7, it will intercept the laterals and direct it out to the north. Lateral 7 has the most drainage into the wetland, part of it will enter the wetland and part of it will go back to the main. This project includes a new 30" concrete main from the end of the wetland all the way down and daylight where it is now. Everything on this project will be funded initially by the Iowa Department of Agriculture and Stewardship, and some will be reimbursed by the FSA, Farm Service Agency, as they are a participant in this program. We have met with the Drainage Board several times, and the plans have been reviewed by Lee Gallentine of CGA, who had some comments, and we have addressed his concerns.

Bourland stated, assuming this is approved, we will finalize plans and go to bidding in late January, and it will be built in spring and summer. The area that is in the easement will always be a wetland, and we are entering into the easement with the agreement that it will no longer be farmed, and we are entering into an agreement with the owners that they will maintain the wetland, making sure there is no impact to the Drainage District.

4. Comments/Discussion

It was asked if this land could never be taken out of wetlands. Bourland stated that is correct. It was asked what the size of the wetland would be, Bourland replied it is a strong 53 acres when you include the CRP acres surrounding the wetland. It was discussed that the wetland itself is 27 acres and the remaining CRP acres will not go back into production. The idea is that the wetland through a natural process, will take the nitrogen out of the water and convert it to a nitrogen gas, which is 78% of our atmosphere. It will provide a benefit to the Drainage District, in that the water flowing through the wetland will have the nitrates removed before it goes back into the drainage tile. Bourland stated we would not normally do anything with the downstream end of this wetland, but the

engineer informed them that the downstream tile was in very bad shape. Bourland stated that through internal conversation with his supervisors, they all agree that they will pay for the new main tile replacement, all the other tile is needed to redirect water into the wetland. Normally what would happen is they would reconnect to whatever tile is already there, but since the condition is so poor and it needs replaced that is part of the reason we were approached for this project.

Granzow asked if a person needs to reconnect a private tile, they can connect to the wetland. Bourland stated that yes, the wetland is there to remove nutrients, and if anyone has private tile they could connect. Granzow asked if the CRP would need to be passed through to connect the private tile, is there a process the landowner would need to follow to do that. Bourland stated he has been involved in CRP areas, and you would need to go through FSA for permission, and their requirements are you avoid the nesting season, and in this case the wetland landowner would need to be involved also. As they relay tile, any connection they come across they will reconnect to the main and drainage is maintained, but if something were to be missed, you would notice it the following year. If you notice something isn't drainage right, give Bourland a call and they will make sure they get things corrected, they are not intending to cause damage to anyone's drainage, but to reconnect it into the wetland for nitrate removal.

Granzow stated a lot of the questions the Trustees received were about the bottom side of the main would be replaced at their cost, and rock bedding could be put in, and if it was put in the rock bedding would be at the district's expense as it would increase the longevity of the tile. Granzow asked how shallow the tile was. Bourland stated it would be 3' of cover on a 30" concrete pipe. Granzow stated if you want the rock bedding the landowners need to tell us, and the top side of the main, Granzow would turn into a lateral, but that may be a question for legal, or a private tile. Granzow stated at the end of the day, a reclassification will be done on this, and the laterals will be pulled out separately as part of the reclassification, so if there are laterals, and you are in that lateral, do you want to be part of a district or do you just want to own your own tile, if you own the entire lateral you are paying for it anyway, whether we go through an engineer or not. Granzow stated you are still entitled to the drainage, but do you want us to go through with an Engineer's report and repair, or do you just want to call your own tile guy and fix it. Granzow stated these were some of the things he wanted to discuss as well.

Granzow asked for any question, none were presented at this time.

Granzow went on that this is a large project that would normally cost the District that they are doing for you. It was discussed that the landowners have been fighting this issue for years, and they were all presented with a liability that no one wanted to face, and thinking this through, does it make more sense to try and replace all this at a cost of a million dollars or do this. It was discussed by the landowners, that if they could go through with this process and remove nitrates from the water, that this was their best option. Hoffman stated as Trustees, we have the responsibility of keeping the facility running and we have to do something, this is not a wait and see anymore, and it has to be done, it is a matter of do you want this as a wetland project or do you want a man made facility that does not have the nutrient reduction capabilities as a wetland. Hoffman is a huge outdoorsman, and this makes an asset to the community as well. The offset is we do the project as a drainage facility to move water from point A to point B at a much greater expense. McClellan asked if there was an estimate of what it would cost to just do the drainage tile replacement without a wetland. Gallentine referenced the 2016 Engineer's Report that stated the option ranged from \$500,000 to \$1,200,000, and it would entirely be the District's cost, no other entity would pay for that.

It was asked, what is the District's cost responsibility on the wetland project compared to a replacement/repair project. McClellan stated the only cost to the District, would be if we decided to put the rock bedding on the new main, or any other upgrades. Bourland stated all the other costs would be at the State's expense, or if you want any other improvements. Granzow stated unless we look at doing an improvement later down the line, you would have to parallel this tile at the bottom of the main and change a few things there, that would be at District expense, this project just puts it back to what we had for drainage. Gallentine stated there will be a structure that outlets the water out of the wetland, if that structure isn't big enough, then there is a spillway, that is a foot higher for overflow, when you are in between stages it is possible that the tile outlets may be submerged, but it isn't like it will just keep backing up like you do with a pipe system. It was asked if what Perry's are doing would be a benefit to the whole district. Gallentine stated it will be of huge benefit to all of us, but there is 55 acres that will never be in production again. Bourland stated there is an environmental benefit in reducing the nutrients as well, and a wildlife habitat, the Perrys will still maintain their ownership of the land and access rights to the land. It was stated by landowners that this would be a huge benefit to the district. Gallentine stated Steve Perry began researching this project after we met three years ago, and discussed the high probable costs of doing just repair/replacement on this district. McClellan commended the Perrys for offering the wetland project.

It was asked that the tile exiting the wetland, will this tile eventually fill in with sediment, and is there a possibility that these tiles will need cleaned out in the future. Bourland stated that a typical CREP wetland with a sheetpile weir, they ask the engineer's to design them with a 150 year sediment life, this wetland, because it is taking advantage of the existing pothole and diverting tile, a lot of the surface water is going to go its natural way and not

necessarily through the wetland, he would expect it to have an even greater sediment life that we typically see. The Perrys will enter into an easement which will be held by the Soil and Water Conservation District, and part of the easement states the Perrys will be responsible for maintaining the site for 30 years, and after that it does not spell out requirements as no one really knows what the future holds for regulations. Part of what the Drainage District Trustees and the Perrys or whomever owns the land in the future, they have to make sure drainage is not impeded, and if drainage is impeded, then the District can come in and do what is needed to maintain drainage and charge the Perry's for it. The landowners have protection that their drainage will be maintained.

It was asked if this was an all state project or state and federal project. Bourland replied it is State and Federal, Perry's will receive CRP payments for 15 years, and they will receive a one time easement fee. The State is covering all the construction costs up front, and we will get some of those costs back, but the spread is probably 50/50 when you put it all together. It was asked for Granzow to further explain making the laterals private. Granzow stated if you are the only land owner on that lateral, Granzow does not know why you would want to make that a district facility as you will be paying it anyway, for any repairs, once we reclassify everyone on that lateral pays on that lateral. The entire district pays on repairs to the main, laterals are only charged to those landowners using that lateral, if you are the only landowner on that lateral, do you want to go through the Trustees or just make the repair on your own. McClellan stated if you take it over as private tile, you can make repairs when you choose to. Gallentine stated it may only be Lateral 13 and the top side of the main, or main tile diversion.

It was asked what is the process to take it from a District tile to a private tile for a Lateral. Mike Richards stated there is a process set out in Code 468 for abandonment of district tile, especially if you are going to abandon part of the main tile, it does require 40 days notice, it does require 40 days notice of hearing, and notice to everyone involved, but if everyone is on the same page, it can be done fairly quickly. Granzow stated there would still be an easement into this wetland even if we did abandon that, Richards concurred. Richards stated you would not be abandoning the whole district just portions of the main and the lateral. Gallentine asked if the process starts with District Trustees, or does it require a petition from landowners. Richards stated the Board of Supervisors or Trustees have the power upon petition of the majority of landowners, who in the aggregate own 60% of such land in the district, to abandon property within the District. Granzow stated if any of the landowners are interested in that option, that is entirely up to them to choose that option, or if it would be beneficial or not. Richards stated that a problem we may run into is if the main above is not working, you have to do something with it anyways. Gallentine stated if this project moves forward it will address that, the lower portion is where the project is plugged, the upper portion is flowing freely.

Gallentine stated in the reclassification, the Trustees could stipulate that part of the main be made a lateral. Richards stated that is correct, the main would still be existing below the wetland. Richards clarified you can reclassify a main or a lateral as long as it does not affect the drainage capability, you could not do that without the appropriate engineering, so you can make sure the system will still work. Gallentine stated he understood that and just wanted to make sure the Trustees had the authority to specify how that is split up.

Steve Perry stated they began these talks with the State about the same time as the Drainage Districts in Buena Vista County had entered into a lawsuit with the Des Moines Waterworks, maybe Richards can expand, that this does not eliminate the liability of the members within the Drainage District, but it does greatly reduce the liability of all of the landowners by putting in the wetland and reducing those nutrients, any future litigation that may occur, these landowners would be safer from those lawsuits. Bourland stated this wetland demonstrates the landowners are doing something, and Iowa State will monitor and test it to show that it is very effective in removing the nutrients, because of the size of the wetland, as there is not as much surface water being directed to this wetland. Bourland stated normal CREP wetlands, depending on rainfall in a year, can remove 80 to 90% of the nutrients, and this should be on that higher end.

It was stated that there is a sensor network across the state that have nitrate sensors in local streams and waterways, and this landowners local stream runs upwards of 15 to 20 parts per million, and pictures some of the tiles that may have that same level when safe drinking water level is 10 parts per million, more than likely we will be below that 10 parts per million which would be below the level that may receive a lawsuit. Bourland stated the whole driver of this program is to reduce the level of hypoxia in the Gulf of Mexico, and the EPA has mandated that the states reduce their nutrients by 40%, this is part of that big picture, as we need thousands of wetlands to be built along with other edge of field practices and proper management. Bourland stated we need all of the tools available to help landowners farm responsibly and reduce their nutrients, as spotlights are shown on Iowa as we have lots of nutrients that leave our state and go down to the Gulf of Mexico.

It was discussed that the only financial liability that will change for anyone in the district, is in the southeast corner, if we take a portion of the main and turn it into a lateral, if we do that and that portion needed repair, that landowner would lose the assistance of the rest of the district. Granzow asked if we must first fix the main before we convert it into a lateral. Richards stated you have to provide the person who uses that portion of the main adequate drainage capacity if you are going to convert it to a lateral, then yes. Gallentine stated he was unsure of

the condition of the main as that far south was out of their scope on this project, Gallentine asked the landowner if they were aware what the condition was at that point, the landowner stated there is good water going to, but there is no where for it to go to now if it is blocked, we would have to do the wetland to know where it is blocked. From that landowners standpoint, that would have to flow before we move it to a lateral from the main. Gallentine stated if there is no district expense, we could see how the project performs and then do the reclassification.

Granzow asked if we want rock bedding on any of the concrete pipe, plastic tile will be used on the laterals, but the main will be concrete. Bourland stated from the manhole to the north, it will be 30" concrete, and the other pipe coming from the south up to it and from the wetland going back to the manhole will be 15" or 18" plastic tile. Granzow stated any changes for adding rock bedding to the contract would be district expense. Gallentine's personal opinion is that plastic pipe is a flexible product and any force you put downwards on it, it wants to push out and squish, concrete pipe is a rigid product so any force you put downwards on it, it takes it around and translates it below, so if you want your plastic pipe to stay totally round, it needs some support on the sides with the rock bedding. Gallentine went on, if you are ok with that plastic pipe being ovalish and smashed a bit then you don't need rock bedding on the sides, it is whatever your expectation level is on the tile. Gallentine stated on cement pipe it speeds up construction because the contractor does not have to get the bottom of the trench perfect, they don't have to spoon the soil, the aggregate will create it's own natural spoon in the trench. Gallentine stated there are thousands of feet of both types of tile with and without rock bedding, and both still perform well, it is really your choice.

Hoffman stated we can always add this as an alternate on the bids, so if it comes in for a small cost we can add it or if it comes in at a significant cost, we can have a landowners meeting with a vote, you have to allow it to be bid to find out what is going to cost. Bourland stated if we put any extras or alternates in our contract, we would pay everything up front and at the end of the project we would send a bill through a 28E agreement with the County, the County would pay us back whatever the extra amount would be, then that amount would be billed to the District landowners based upon the classification schedules. Bourland stated we could bid it both ways and work with the Trustees to decide what you want to do. It was asked how deep the tile was, Bourland stated the 30" pipe has 3' of cover, so it is about 5' to 6' deep for the concrete main, for the laterals we need to be 1' above, and figuring out how far back we need to be to get the elevation we need, so we are laying those as flat as we can, there will not be much cover on the plastic tile, only enough to cover and protect them, 5' to 6' as well on these.

Bourland stated we hired WHKS to do the design and they will also be on-site during the construction, to observe the contractor putting the tile in. If the District wants their own person out there, they can do that also. It was asked by a landowner, that at the last meeting we decided to go with this project and see what it would do, if we go through with this, does it affect the bottom line we had before, will it cost me the same as before. McClellan stated the only portion the landowners would pay for is the rock bedding. Bourland stated if they did not add anything to the project, we built it the way it is shown here the landowners of the District would pay zero dollars for construction. Gallentine stated the landowners would still be responsible to pay for the reclassification, as that is an internal housekeeping type cost, but that is a fraction of the \$500,000 repair project cost. McClellan stated, after this project is completed, we can see how everyone's drainage performs, and if there is still blockages, the main tile that may possibly be turned into a lateral, anything on that may be assessed to landowners. Hoffman states it was a fair question. Steve Perry stated it is still the responsibility of the district to get the water to the wetland, there are some rerouting of tiles that are being taken up by this project but then everything outletting to where the District ends, that is on the State, Granzow asked if the tile would be non-perforated tile. Bourland stated yes it is all non-perforated.

Granzow stated if the rock bedding helps us get twice the lifespan out of the tile, it is an inexpensive cost as the rest of the project will already be paid for. Hoffman stated the return on investment is that the bedding creates some stability, increases the efficiency of the tile line, and you get the longevity as well for a minimal cost. It was asked if we could bid the rock around the plastic tile only. Bourland stated we could do that too, typically if they don't use rock bedding they have to put plastic tile in with the spooning. Hoffman stated we tried with Handsakers, plowing in dual wall tile, plowing it in, but we are not ready yet to commit to that here.

There was a thank you to the Perrys, from the other landowners, for saving them all quite a bit of money. It was commented that Joyce was willing to be a participant, but the design engineer's did not think they could accomplish that large of a project, and that is the reason the Perry's proceeded on their own as it did not include any of Joyce's properties. Bourland stated we went from the sheetpile to this, otherwise we would have had most of the structure on her place. There will be a 30" intake at a particular elevation, that will essentially put water right back in the main, as it is now taking it in underground. Steve Perry stated the rock bedding intrigues him, as he wants to see to it the 30" tile continues to drain effectively as it will make our liability with the wetland less going forward, so as long as it runs at capacity at all times especially during storms, he would be in favor of rock, but wants to see what the bids look like, and let it be a District decision.

Mike Bourland stated it is hard to put together the 28E agreement without having the bids at hand, we can put things together and schedule the bid letting, and email the bid tab to you, and if we decide to go forward at that time we can develop a 28E agreement at that time. Mike Richards agreed with that statement. It was asked by a landowner, where there is District tile and they are doing the main diversion around it on the southeast, if there is any private laterals hooked up to that main, they aren't going to find anything coming in from the east side. Bourland stated the blue line on that tile will still be in place, it will just be underwater, if you do run into something later we will fix it, it is not uncommon for us to come back and fix something because a tile gets missed. Bourland stated we try not to have that happen, but occasionally it does and we fix it. Granzow asked if Mike Richards had looked at the Wetland Development Drainage Agreement, Richards stated he looked it over and had no problems with it, Perry had copies here and had no issues and was ready to sign it. It was asked, if we reclassify, are these acres in the wetland, will they be taken out of the classification. Bourland stated they will still be in the district and they will be reclassified. Granzow stated they will be reclassified after the project as we determine if they will be laterals or a main. Bourland stated the acres of the wetland itself, but their benefit will be much less than there is now, as there is no benefit to Perrys now. Granzow stated that would be up to the Reclassification Committee and the Trustees, they can send us something and we can reject it, but that comes after this project.

Bourland stated he got a call from Arlene Brandt, as they were beginning to work on this project, Brandt was approached about a potential easement on her property, but as the design developed we no longer needed an easement on her property, other than relocating a tile on her property, and at no cost to her unless it is for additional rock bedding that would be shared by landowners. Bourland just wanted to clarify that as she had called, Bourland was concerned she may still be confused but her tenant would be here at the meeting, but thought she would be ok after speaking with her tenant. Gallentine clarified that the main tile does continue a decent amount south and east, so there is a good amount of main tile not shown on the map, that is Brandt's property to O Ave., there is a good 1/4 mile of main tile that continues. It was commented it will be interesting to see what they find when they get into the tile, as more of the obstructions looked to be in the wetland area and north, rather than south. Gallentine stated we should do the construction and see how it performs.

Granzow asked if we need to enter the agreement right away, Steve Perry stated it has been updated with all the legal descriptions, and he has a deadline coming up for the CRP filing, if this were signed today he would know he is good to go for the CRP. Junker stated she has a copy of Story County's, and asked if they want to use Perry's as it is updated, or have it sent to Richards for review before the Trustees sign it. Richards stated as long as it says Hardin County and the blanks are all filled in with no scribner's errors, the agreement itself is fine, but he is happy to review it if the Trustees wish. It would take Richards 5 minutes to review, Steve Perry can forward it to Richards. Perry sent it on to Richards. While waiting, Granzow asked for any other questions.

Bourland asked, once we set bid dates, how much notice do you need to determine if the rock bedding alternate is selected, will an additional hearing be needed. Bourland stated we can do a bid opening on Friday, and do the bid tab on Monday, and we can let people know ahead of time when the meeting is going to be, they just won't have any information until the meeting itself. Gallentine stated as long as costs are below \$50,000, a formal hearing is not needed, nor is a 40 day notice needed. Granzow stated on the last page when it says Hardin County Board of Supervisors Trustee for Drainage District, shouldn't it just say Trustees. Richards stated he reviewed the documents, other than noting of all the real property description is correct, which he has no way to tell, the rest looks fine. Richards stated you could change the signature block but if you want to keep it in its current form that is fine. McClellan asked if all of the Trustees needed to sign or just the Chairperson. Richards stated you can enter the agreement, Hoffman stated it has been reviewed by attorney Mike Richards.

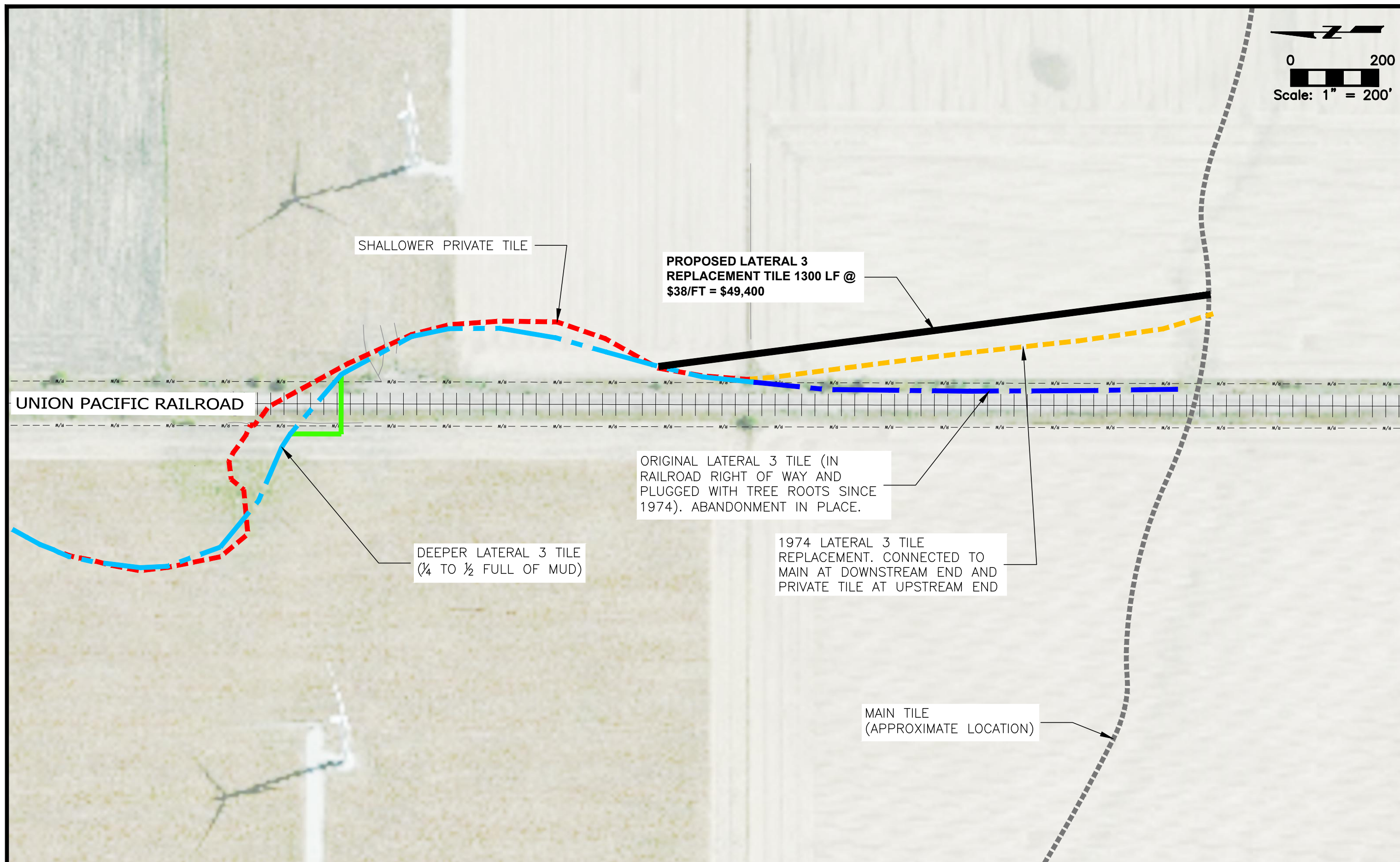
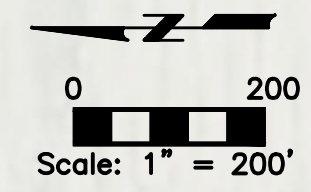
5. Possible Action

Motion by Hoffman to enter the Wetland Development Drainage Agreement as presented. Second by Granzow. All ayes. Motion carried.

6. Other Business

The Trustees thanked all of the landowners, participants, Mike Bourland and Mike Richards.

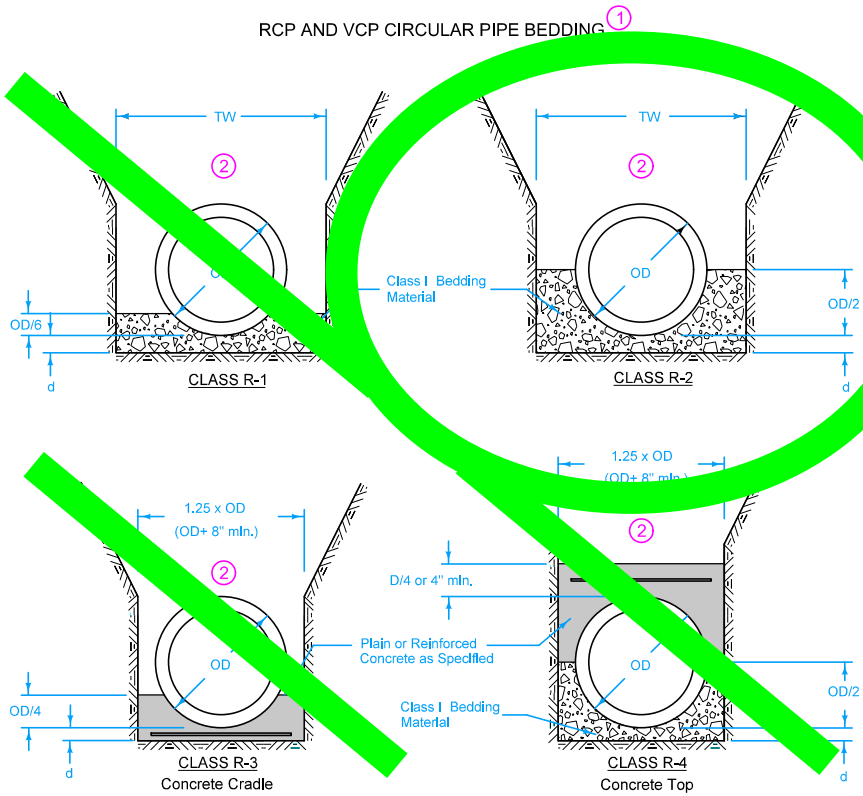
7. Adjourn Meeting



DRAWN BY: ZJS DATE: 2020-03-30 FIELD BK: - P:\6501\CADD\SURVEY\6501 - PLANS+NEW_SHOTS_2.DWG; 4/1/2020	APPROVED BY: LOG PROJ. NO.: 6501	REVISIONS:		Clapsaddle-Garber Associates, Inc Main Office: 16 East Main Street Marshalltown, Iowa 50158 Ph 641-752-6701 www.cgaconsultants.com	ADDRESS: 739 PARK AVENUE ACKLEY, IOWA 50601 PH 641-847-3273 FAX 641-847-2303	PROJECT: REPAIRS TO MAIN AND LAT 3 DD 25 HARDIN COUNTY, IOWA 2020	SHT. NAME: INVESTIGATION MAP	SHT. NO.: 1 OF 1
--	-------------------------------------	------------	--	--	---	--	---------------------------------	---------------------

During recent exploratory excavations by McDowell and Sons, it was discovered that the existing Lateral 3 District Tile downstream (i.e. south of the proposed project) and east of the Union Pacific tracks is plugged inside the railroad right of way. Although the intent of the 1974 replacement was to eliminate this issue, it appears that in 1974 the replacement tile was connected to the shallower private tile instead of the deeper district tile. This means that the deeper district tile has not been able to outlet into the Main for several decades. In order to remedy this issue, an additional 1,300'± of tile would need installed at an estimated cost of \$49,400 beyond those previously presented. Please note that this estimated cost is based on previously bid prices and may vary depending on depth of tile installation.

RCP AND VCP CIRCULAR PIPE BEDDING



Refer to sheet 2 for bury depth restrictions.

- ① Use Bedding Class R-1 or R-2 unless specified otherwise.
- ② Place remainder of bedding and backfill materials as specified in the contract documents.

Key

- OD = Outside diameter of pipe
- OS = Outside span of pipe
- TW = Trench width at top of pipe:
Min. = OD+18 Inches
Max. = 1.25xOD+12 inches OR 54 Inches (whichever is greater)
- d = Depth of bedding material below pipe:
OD/8 or OS/8, OR 4 inches (whichever is greater)

REINFORCED CONCRETE ARCH AND ELLIPTICAL PIPE BEDDING

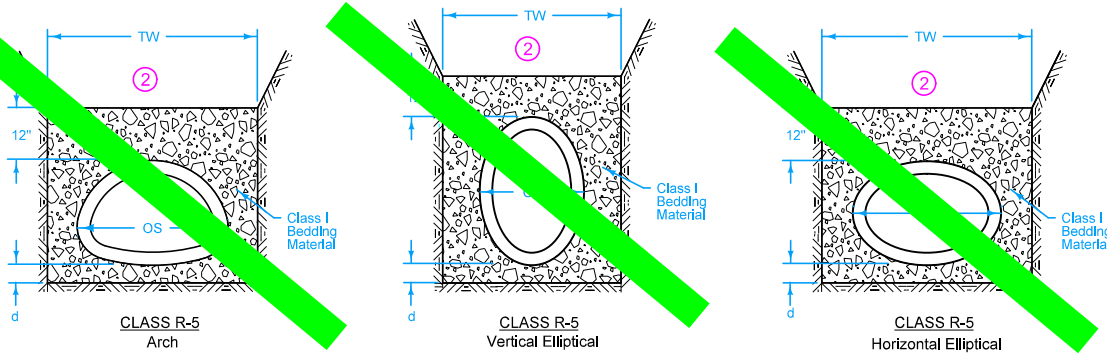


FIGURE 3010.102 SHEET 1 OF 2

SUDAS	IOWADOT	REVISION
		3 04-16-19
FIGURE 3010.102	STANDARD ROAD PLAN	SW-102
REVISIONS: Changed Class 1 to Class I in CLASS R-5 Vertical Elliptical detail.		SHEET 1 of 2
Paul D. Wigand SUDAS DIRECTOR		Steve Miller DESIGN METHODS ENGINEER
RIGID GRAVITY PIPE TRENCH BEDDING		

ALLOWABLE BURY DEPTH

CLASS III RCP

Pipe Diameter (in)	Class R-1 Bedding	Class R-2 Bedding	Class R-3 & R-4 Bedding		
			No Steel	As=0.4%	As=1.0%
12	7'	10'	15'	19'	27'
15	8'	10'	16'	19'	27'
18	8'	11'	16'	20'	40'
21	8'	11'	18'	26'	40'
24	8'	12'	23'	36'	40'
27	10'	15'	30'	40'	40'
30	11'	15'	29'	40'	40'
33	11'	15'	28'	40'	40'
36	11'	15'	27'	40'	40'
42	11'	15'	26'	38'	40'
48	11'	15'	26'	36'	40'
54	11'	15'	25'	34'	40'
60	11'	15'	25'	33'	40'
66	11'	15'	24'	32'	40'
72	11'	15'	24'	32'	40'

As = Area of Steel Reinforcing

CLASS IV RCP

Pipe Diameter (in)	Class R-1 Bedding	Class R-2 Bedding	Class R-3 & R-4 Bedding		
			No Steel	As=0.4%	As=1.0%
12	12'	15'	23'	28'	40'
15	12'	16'	23'	30'	40'
18	13'	16'	29'	40'	40'
21	13'	18'	40'	40'	40'
24	16'	23'	40'	40'	40'
27	19'	30'	40'	40'	40'
30	19'	29'	40'	40'	40'
33	19'	28'	40'	40'	40'
36	19'	28'	40'	40'	40'
42	18'	27'	40'	40'	40'
48	18'	26'	40'	40'	40'
54	18'	25'	40'	40'	40'
60	18'	25'	40'	40'	40'
66	18'	25'	40'	40'	40'
72	18'	24'	40'	40'	40'

As = Area of Steel Reinforcing

CLASS V RCP

Pipe Diameter (in)	Class R-1 Bedding	Class R-2 Bedding	Class R-3 & R-4 Bedding		
			No Steel	As=0.4%	As=1.0%
12	18'	23'	35'	40'	40'
15	19'	24'	40'	40'	40'
18	19'	30'	40'	40'	40'
21	25'	40'	40'	40'	40'
24	34'	40'	40'	40'	40'
27	40'	40'	40'	40'	40'
30	40'	40'	40'	40'	40'
33	40'	40'	40'	40'	40'
36	40'	40'	40'	40'	40'
42	37'	40'	40'	40'	40'
48	35'	40'	40'	40'	40'
54	33'	40'	40'	40'	40'
60	32'	40'	40'	40'	40'
66	31'	40'	40'	40'	40'
72	31'	40'	40'	40'	40'

As = Area of Steel Reinforcing

EXTRA STRENGTH VCP

Pipe Dia. (in)	Bedding Class				
	R-1	R-2	R-3 & R-4		
			No Steel	As=0.4%	As=1.0%
6	25'	30'	30'	30'	30'
8	20'	26'	30'	30'	30'
10	18'	23'	30'	30'	30'
12	16'	20'	30'	30'	30'
15	15'	19'	28'	30'	30'
18	14'	18'	30'	30'	30'
21	15'	22'	30'	30'	30'
24	18'	28'	30'	30'	30'
27	20'	30'	30'	30'	30'
30	19'	29'	30'	30'	30'
33	20'	30'	30'	30'	30'
36	20'	30'	30'	30'	30'
39	19'	29'	30'	30'	30'
42	18'	26'	30'	30'	30'

As = Area of Steel Reinforcing

CONCRETE ARCH PIPE

Pipe Size (in x in)	Equiv. Dia. (in)	Pipe Class	
		A-III	A-IV
18 x 11	15	6'	11'
22 x 13	18	6'	11'
26 x 15	21	6'	13'
29 x 18	24	7'	15'
36 x 22	30	8'	15'
44 x 27	36	8'	14'
51 x 31	42	8'	15'
58 x 36	48	8'	15'
65 x 40	54	8'	15'
73 x 45	60	8'	14'
88 x 54	72	9'	14'

Based on Class R-5 bedding

HORIZONTAL ELLIPTICAL RCP

Pipe Size (in x in)	Equiv. Dia. (in)	Pipe Class	
		HE-III	HE-IV
14 x 23	18	12'	22'
19 x 30	24	15'	29'
22 x 34	27	15'	28'
24 x 38	30	15'	27'
27 x 42	33	15'	27'
29 x 45	36	15'	26'
32 x 49	39	15'	26'
34 x 54	42	15'	25'
38 x 60	48	15'	25'
43 x 68	54	15'	24'
48 x 76	60	15'	24'
53 x 83	66	15'	24'
58 x 91	72	15'	24'
63 x 98	78	15'	23'
68 x 106	84	15'	23'

Based on Class R-5 bedding

VERTICAL ELLIPTICAL RCP

Pipe Size (in x in)	Equiv. Dia. (in)	Pipe Class			
		VE-III	VE-IV	VE-V	VE-VI
23 x 14	18	10'	15'	22'	33'
30 x 19	24	10'	16'	34'	40'
34 x 22	27	11'	20'	40'	40'
38 x 24	30	12'	23'	40'	40'
42 x 27	33	15'	30'	40'	40'
45 x 29	36	15'	29'	40'	40'
49 x 32	39	15'	29'	40'	40'
54 x 34	42	15'	28'	40'	40'
60 x 38	48	15'	27'	40'	40'
68 x 43	54	15'	27'	40'	40'
76 x 48	60	15'	26'	40'	40'
83 x 53	66	15'	25'	40'	40'
91 x 58	72	15'	25'	40'	40'
98 x 63	78	15'	25'	40'	40'
106 x 68	84	15'	24'	40'	40'

Based on Class R-5 bedding

FIGURE 3010.102 SHEET 2 OF 2

		REVISION
		3 04-16-19
FIGURE 3010.102	STANDARD ROAD PLAN	SW-102
REVISIONS: Changed Class 1 to Class I in CLASS R-5 Vertical Elliptical detail.		SHEET 2 of 2
SUDAS DIRECTOR		DESIGN METHODS ENGINEER
RIGID GRAVITY PIPE TRENCH BEDDING		

Drainage District:

#26 Lateral 4

Investigation Summary:

- Tenant in SW¼ NW¼ Section 20, Township 88 North, Range 22 West reported wet spot in field and stated he had been farming for 25 years and the reported wet area had not been a problem spot until the 2010/2011 project when the Supplemental Lateral 4 tile was constructed.
- CGA visually searched area and found a wet spot with standing beans that measured approximately 0.3 acres. The location is just west of the Supplemental Lateral 4 tile that was installed, as shown on the attached map.
- CGA searched as-built files from the Supplemental Lateral 4 tile and found that no private tile was recorded or connected to the Supplemental Lateral 4 tile in this area at the time of construction.
- CGA reviewed historical photos of this area from 1971-2017 (attached) and noted that the wet spot first appeared on aerial photography in the spring of 2016. It also appeared in aerial photos from 2017 and was visually confirmed in the field in 2018. No observable wet spots were there in prior years including the reviewed 2013, 2014, and 2015 aerials.
- On-site visual inspection, reviewing historical aerials, and reviewing as-built information was unable to determine the cause for the wet spot; however, confirmed its presence.
- CGA considers it a possibility that a private tile didn't get hooked up during the 2011 project. Aerial photography doesn't show any resulting wet spots until a few years later which we would typically expect to show up sooner after construction. Tile witching is not conclusive investigation and has been known to have false positive readings in areas where water may have established subsurface drainage paths without tile; however, CGA field staff did indicate crossing witching wires at the northwest edge of the wet spot.

Contractor Time and Materials (spent while CGA was on-site):

None, as only visual observation was performed.

Additional Actions Recommended:

We recommend sharing these findings with the landowner / tenant and asking if they have any knowledge of a private tile in this area. If they do, we recommend that the private tile be connected to the Supplemental Lateral 4 tile.

If landowners have no knowledge of private tile in the area, we recommend the District Trustees' consider the following options:

- Excavate said wet spot to identify source of water and connect private tile, if found. If no private tile is found, it may be possible that the surface was not put back to pre-construction topography and there could be a hump trapping surface water from draining to the area directly or nearly above the original tile. Pre-construction subsurface drainage patterns were disrupted and may not have reestablished themselves.
- Continue to monitor the area to see if the wet spot persists next year or the site begins to form subsurface drainage paths that may have been disturbed / interrupted by construction.



CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

12/14/18

DAYS OF WEEK:

S | M | T | W | T | **F** | S

PROJECT NUMBER:

8719 5055 !!

COUNTY, ROUTE, ROAD:

DD 26, LAT 4

LOCATION:

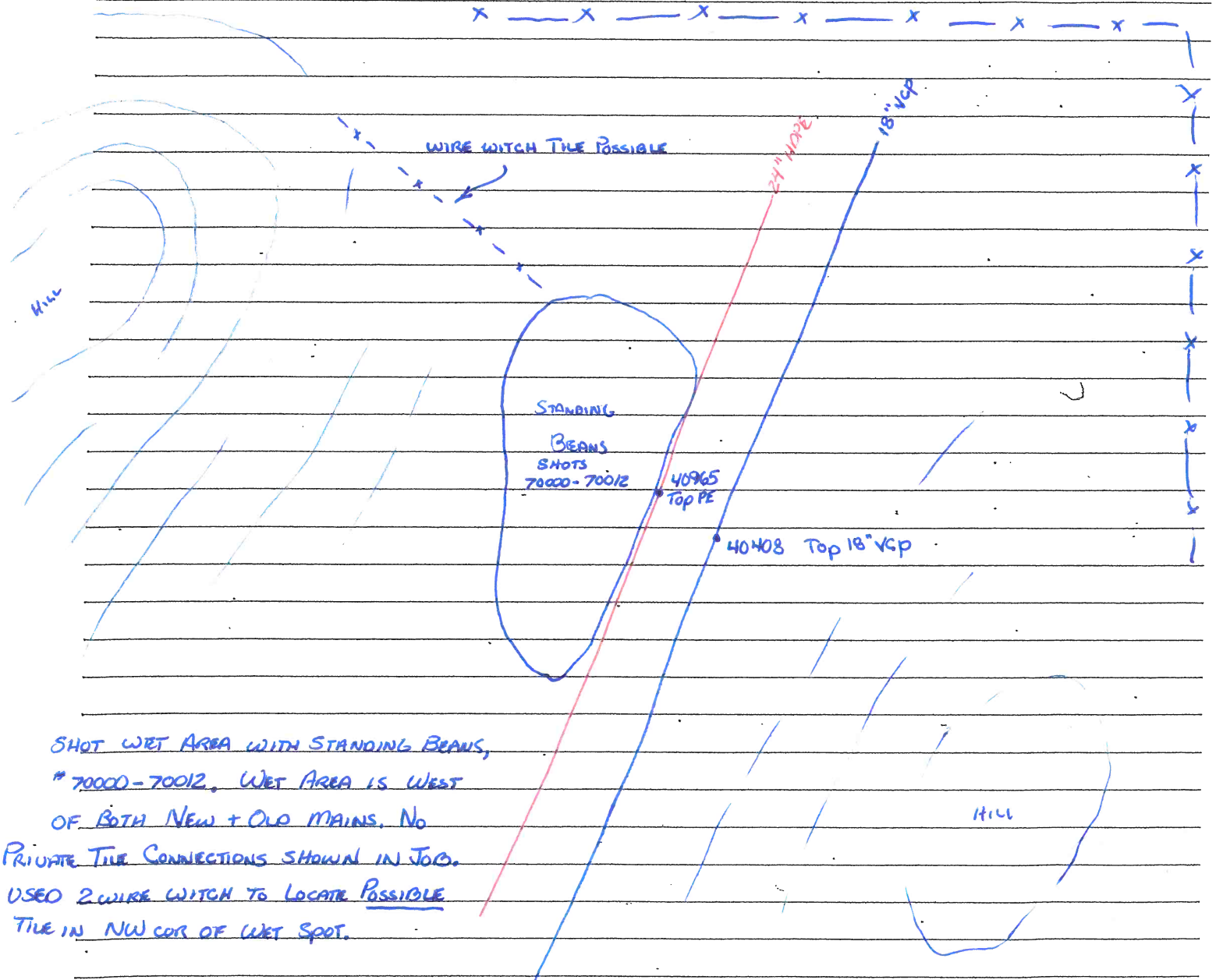
E. OF HOUSE #19414 ON "C" AVE.

SHEET NO.

OF

SUNNY, CALM, 38°, MELTING SNOW, FROZEN DIRT.
⊕ 26008 IN JOB 5055 DD26

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION



SHOT WET AREA WITH STANDING BEANS,
70000-70012. WET AREA IS WEST
OF BOTH NEW + OLD MAINS. NO

PRIVATE TILE CONNECTIONS SHOWN IN JOB.
USED 2 WIRE SWITCH TO LOCATE POSSIBLE
TILE IN NW COR OF WET SPOT.

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

[Signature]

Date Prepared:

12/14/18

Reviewed by:

Heather Ann Thomas

Engineer

Date Reviewed

12/24/18

LOOKING WEST @ WET SPOT (ACREAGE IN BACKGROUND ON "C" AVE)

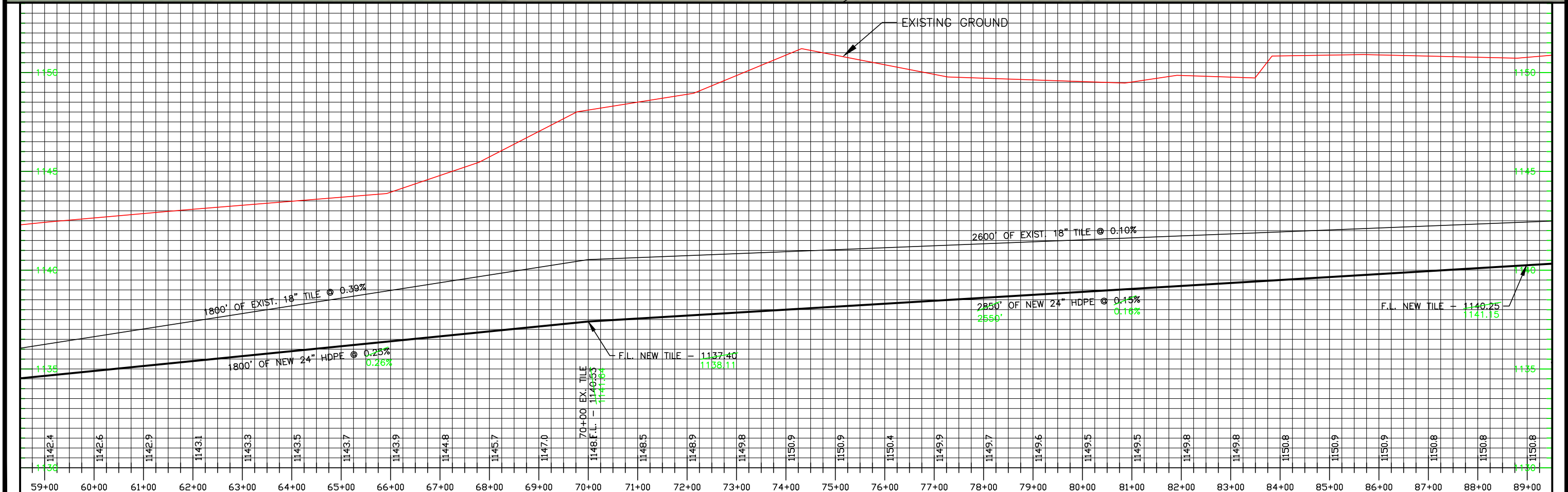
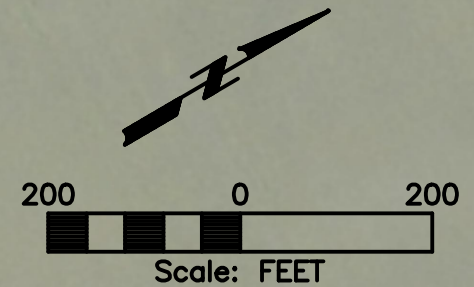


LOOKING SOUTH @ WET SPOT



LOOKING EAST @ WET SPOT





DRAWN BY: RLY	APPROVED BY: XXX	REVISIONS: 03-02-2011
DATE: 01-28-11	PROJ. NO.: PXXXX-XXXX	
FIELD BK: XXX	DWG.:	

REERYKEN ENGINEERING
 ACKLEY, WEBSTER CITY, & MASON CITY, IOWA

ADDRESS:
 711 PARK AVENUE, ACKLEY, IOWA 50601
 PH 641-847-3273 FAX 641-847-2303

PROJECT:
 DD #26 LATERAL 4
 DRAINAGE DISTRICT IMPROVEMENTS
 HARDIN COUNTY, IOWA 2011


SHT. NAME:
 PLAN & PROFILE

SHT. NO.:
 5 of 10

P:\P1002-5055\CADD\26P&PASBUILT-ZJS.DWG; 1/9/2019



1971 July



1983 May

A black and white astronomical image showing a dense field of stars. The stars are of varying brightness and are scattered across the frame. A yellow oval highlights a specific star in the lower right quadrant. The image has a grainy texture and some faint lines, possibly from the scanning process or the original print. In the bottom left corner, there is a red text label.

1994 April



2002 Spring - Infrared

This is an infrared astronomical image showing a field of stars. The stars appear as bright white and yellowish points against a dark background. A yellow oval highlights a specific star in the lower right quadrant of the image. The image is divided into a grid of rectangular panels by thin white lines. On the left side, there are two small, rectangular, pinkish-white labels with some illegible markings. The overall color palette is dominated by dark blues, greys, and blacks, with the star colors providing contrast.

2004 Summer



2005 Summer



2006 Summer

2007 Summer





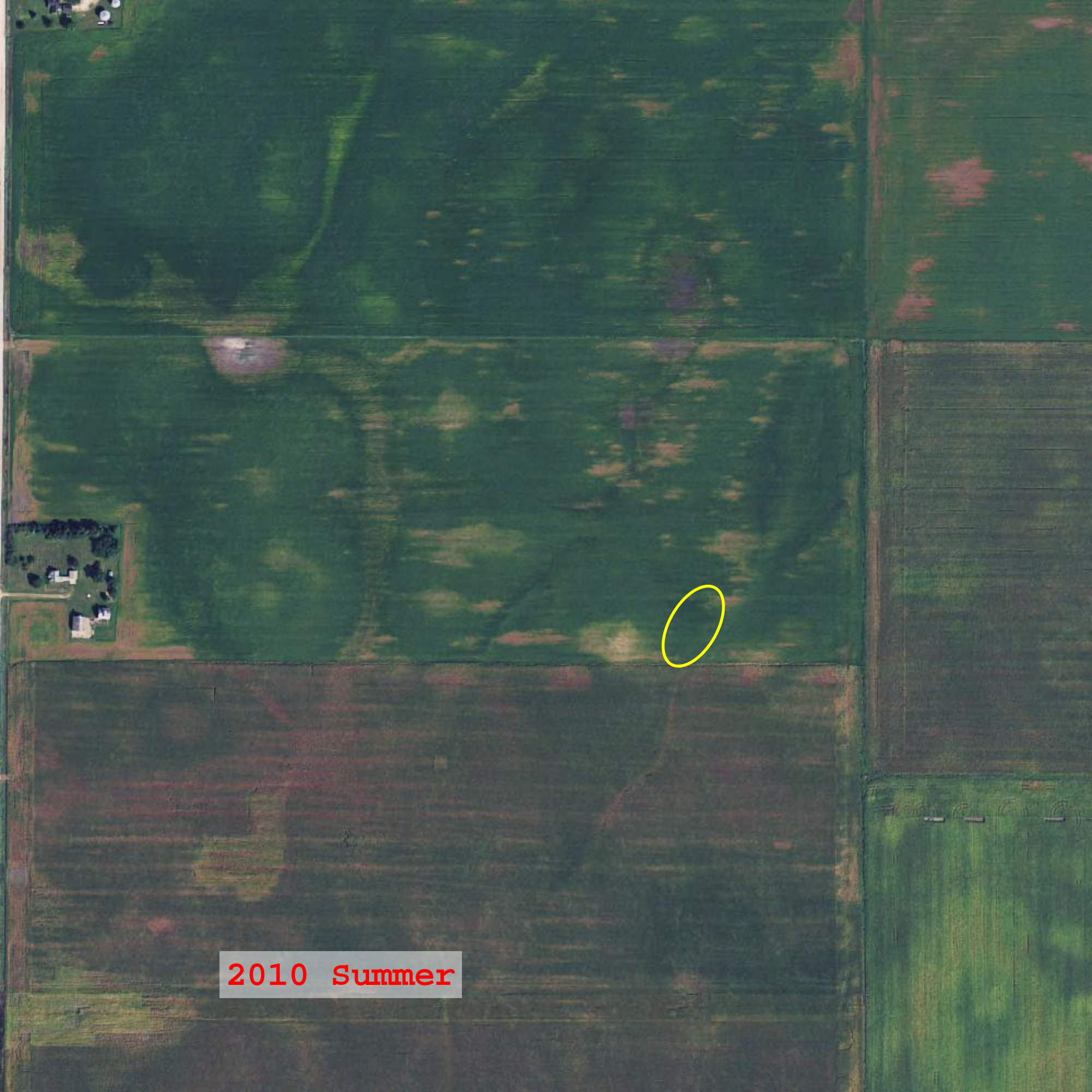
2007-2010 Spring



2008 Summer



2009 Summer



2010 Summer




2010 Summer - Infrared



2011 Summer

An aerial infrared photograph of a field. The image shows a large rectangular field with a yellow oval highlighting a specific area in the lower right quadrant. The field is divided into several sections by a network of roads and paths. The color palette is primarily red and brown, with some green and blue areas. A yellow oval is drawn around a small, dark, irregularly shaped area in the lower right section of the field. The text "2011 Summer - Infrared" is overlaid in the bottom left corner.

2011 Summer - Infrared

An aerial photograph showing a landscape with a mix of green and brownish-yellow areas. A yellow circle highlights a small, dark, irregularly shaped area in the middle-right section of the image. The overall scene appears to be a mix of vegetation and possibly a body of water or a cleared area. There are some small structures or buildings visible in the lower-left corner.

2013 Summer



2013 Summer - Infrared



2014 Summer



2014 Summer - Infrared



2015 Summer



2015 Summer - Infrared



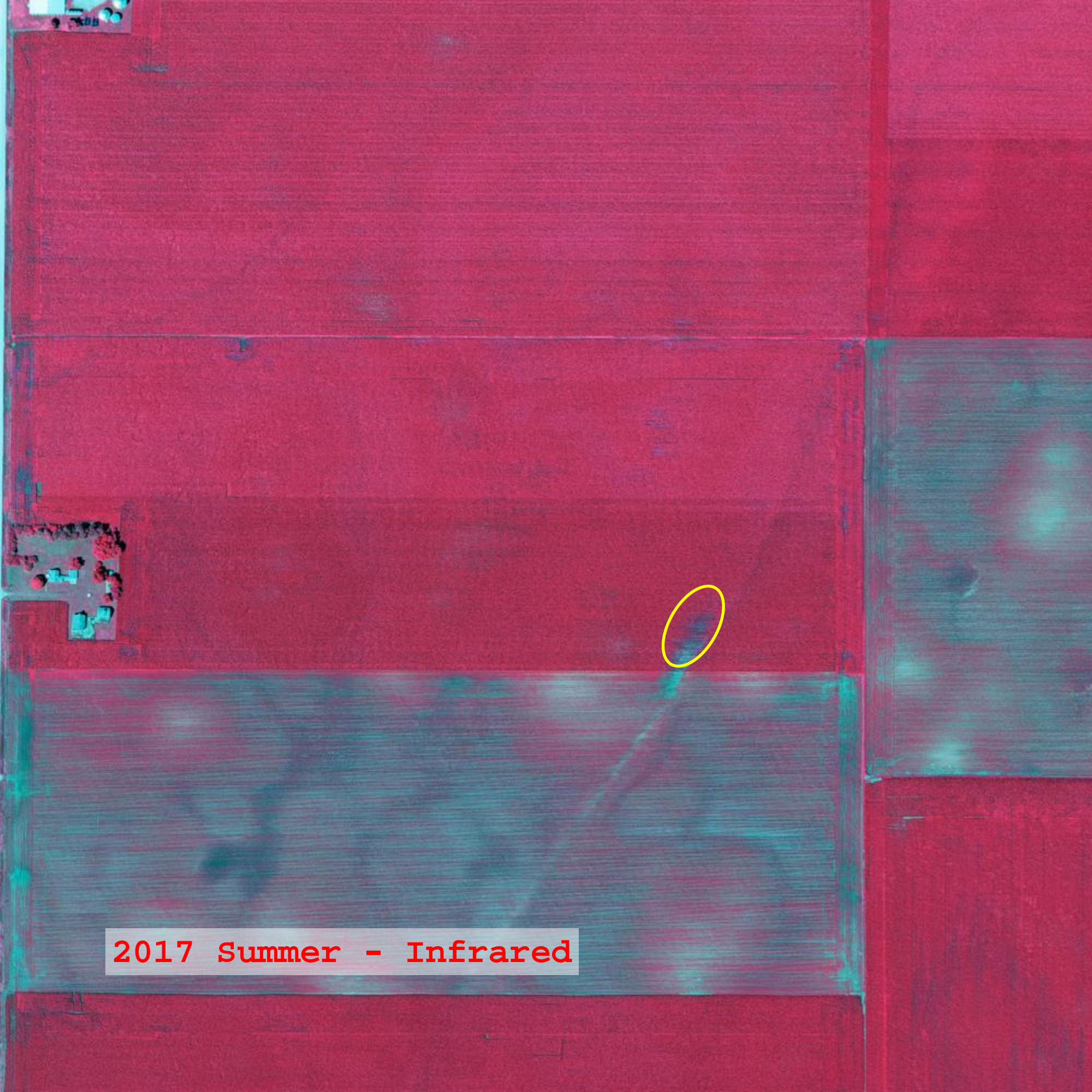
2016 Spring



2016 Spring - Infrared



2017 Summer



2017 Summer - Infrared



Hardin County Drainage
 Drainage Districts \DD 26 (51049)\DD 26 Lat 4 (51050)
 WO00000082

Work Order Detail

Begin Date: 5/27/2015
Status: On Hold - On Hold
Description: Tile problem on 190th between C & D Avenues. Paul would also like to look at the option of extending the old tile out from the manholes. (Combined with original WO81 also.)

Requested By: Randy Silvest / Jim Vierkandt
Email: Randy (641) 640-0171
Phone: (515) 689-4737
Landowner: Lee Anderson
GIS # 88-22-20-300-003
Sec-Twp-Rge: 20-88-22

Expenses:

Date	ExpenseCode	Vendor	Description	Amount
8/7/2015	Engineering	Ryken Engineering Co	8/7/2015 DD 26 LAT 4 ENGINEERING	\$1,146.25
8/7/2015	Engineering	Ryken Engineering Co	8/7/2015 DD 26 LAT 4 ENGINEER	\$465.00
Total:				\$1,611.25

Contract/Estimate:

Description	Amount
-------------	--------

Notes:

Note

6/3/15-BOS approve to CCTV as fall project when crops are out. Tina to contact Paul of decision.

BOS agreed to follow up when Don Etler's investigation is complete. A landowner information meeting will be held at that time to discuss both items. This is considered an improvement & trustees want landowner input...

6/4/15-Tina spoke with Paul. Ok with waiting until fall.

7/2/15-Working on engineers report.

7/29/2015-Landowners request to install perm access pts for future CCTV inspections & maintenance. Engineers opinion that this would be considered a repair and not an improvement. A 24" intake is adequate to CCTV equip to access. If Trustees want, CCTV could be performed between structures 1 & 2. Summary shows 2 different methods. #1 estimated at \$1,000-\$2,000. #2 estimated at \$4,000-\$5,000. If manholes installed, estimated at \$8,000-\$10,000.

8/5/15-BOS agree to table any actions until discussed with landowners during their information meeting and once Don Etler's investigation report is done.

12/9/15-BOS approve Williams Excavation & Howe Sanitation to CCTV while out in the area for DD 22. Etlers prelim opinion to wait and see if new tile will be installed. Paul concerned that this could take years while he has poor drainage. Etler to examine Ryken Engineer Report and will notify Trustees of final opinion.

10/11/17-BOS set landowner meeting for 10/25/17 at 1:00 pm.

6/10/15-BOS approve Ryken to prepare engineers report for improvements to re-connect old tile from manholes along 190th. The report will be discussed at Don Etler's information meeting. The BOS also asks Lee to seek legal advice re: installing manholes every 2000' also requested by Peterson, to see if should handle as repair or improvement and how to proceed. Lee also to prepare cost estimated to install these manholes.

12/15/15-Etler submitted recommendation.

12/23/15-BOS accepted report. No action taken.

8/8/18-Paul Peterson requested proj be put on hold. Thomas stated that calculations have been performed but no formal report. Est'd approx \$1,200 has been charged but not billed & to complete the report would cost add'l \$3,000. Tile is flowing and working. BOS agree to place proj on hold & not do report until landowners request.

12/4/18-Randy Silvest stated east of the hill (east of Marvin Krause's place GIS 882220100005), there has been a wet spot. He's been farming it for 25 years and never had a problem until the 2010/2011 project. He would like it looked at.